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ABSTRACT

The purpose of this guide is to provide direction and assistance to driver education instructors and school administrators as they plan and implement quality programs of traffic safety instruction. Materials are divided into seven chapters conveying: (1) the organization and administration of driver and traffic safety education, (2) the driving task, (3) suggested instructional media, (4) energy conservation tips, (5) the automobile driver and the motorcycle, (6) alcohol, drugs, and driving, and (7) the automobile and pollution. Each chapter gives an overview, performance objectives, content outline, learning activities, and suggested resource materials. In addition, the guide provides sample application forms, sample parent letters, driving range layout plans, and transparency masters. (LH)

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HALLWAYS TO HIGHWAYS

Driver Education 1982

Oklahoma State Department of Education

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LLOYD GRAHAM, Deputy State Superintendent
TOM CAMPBELL, Associate Deputy State Superintendent
JOHN FOLKS, Associate Deputy State Superintendent

J.D. Giddens	Jack Strahorn	Murl Venard
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INSTRUCTION	STATE-FEDERAL	FINANCE

1982

S# 015-236

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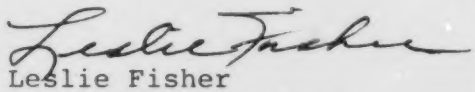
Foreword

The primary purpose of the Oklahoma State Department of Education is that of improvement of the instruction of students in our schools. This is especially true in a program so vital to the safety of our communities as the education of drivers. Constant effort must be expended toward providing the best information available in a contemporary format, using the most effective methods of presentation possible.

In an effort to achieve this purpose, the Department of Education is happy to present this guide, with the hope that it may serve to assist the schools in better preparation of students for the driving task. The safety of our roadways is dependent upon sound judgment of road users. Equipping students with knowledge on which to base sound judgments, and assisting them in development of the skills necessary to execute sound judgment, is up to you, the Driver Education teacher. It is our sincere hope that this quide will assist you in this very important task.



Leslie Fisher
State Superintendent

Introduction

Aside from birth, perhaps the most significant event in the life of a young Oklahoman is the earning of a motor vehicle operators license. The operators license represents mobility, status, freedom and an initial passage rite into adulthood.

This event, however, can also represent sadness, pain and disaster. Automobile accidents are a leading cause of injury and death among our school age population.

The purpose of this book is to provide direction and assistance to driver education instructors and school administrators as they plan and implement quality programs of traffic safety instructing for tomorrow's drivers.

Travis Tice, Administrator
Driver and Safety Education

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State Department of Education

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Acknowledgements

A Special Thanks To:

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We are indeed grateful to the following for the hard work done in this publication:

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Organization And Administration

INTRODUCTION TO DRIVER AND TRAFFIC SAFETY EDUCATION.

This guide is offered as an instrument for giving assistance to school administrators, supervisors, and instructors in planning and implementing a quality program of Driver and Traffic Safety Education. It was prepared by a competent committee of Driver Education Instructors and is designed to be a practical, comprehensive guide, not a textbook.

Improvement of instruction in Driver and Traffic Safety Education is an on-going process. It is hoped that those who seek may find in these pages, materials and suggestions that will direct them to improving the quality of instruction. A quality Driver Education program must equip each student with the skills and knowledge necessary for the safe, efficient operation of a Motor Vehicle. Yet limits preclude development of these skills and knowledge to the extent of expertise. Exterior forces may play a greater role than instruction in the development of safe attitudes. Neither the student nor the public are to be led to believe that completion of a program of Driver Education produces a finished driver. But pointed in the right direction, the student may go on to a lifetime of development of attitudes, skills, and habits that do constitute a safe driving record.

INSTRUCTIONAL GOALS

The overall goal of a Driver Education program is to develop drivers who are competent and who recognize the social responsibility of each user of the roadway.

INSTRUCTIONAL OBJECTIVES

Having completed a course of Driver and Traffic Safety Education, the students will be able to:

1. List the capabilities and limitations of themselves, their vehicles, and other users of the roadway
2. Recognize and describe vehicle operation as a mental and social task, involving interaction with other participants in the highway transportation system

3. Demonstrate the techniques of IPDE (Identify, Predict, Decide, Execute) in motor vehicle operation. This involves constant scanning alert awareness of developments within the vehicle as well as the entire traffic environment surrounding the vehicle
4. Identify social, physical, and psychological factors that may produce an adverse effect on the driver, and suggest ways of overcoming or compensating for these effects
5. List and discuss the variations in vehicle size and equipment as factors in determining which vehicle is appropriate for specific needs.

STATE BOARD OF EDUCATION
RULES AND REGULATIONS
for
OKLAHOMA HIGH SCHOOL DRIVER AND TRAFFIC SAFETY EDUCATION

I. TEACHER QUALIFICATIONS

In order to be qualified as an instructor of Driver and Traffic Safety Education in the secondary schools of Oklahoma, every teacher must have:

A. A valid Oklahoma elementary-secondary or secondary teaching certificate.
B. A valid Oklahoma Driver's License.
C. An acceptable driving record as approved by the Department of Public Safety.
D. A minimum of six (6) semester hours in Driver Education I and Driver Education II (exception - any teacher's Driver Education Course in which credit was earned before September 1, 1958, may meet the requirements of the above six hours.)
E. A minimum of three (3) semester hours of General Safety Education.
F. If the teacher is teaching as a major assignment, then said teacher must have the special certificate in Safety and Driver Education.
G. A current driver education instructor's permit.

The State Department of Education shall require proof of a standard accredited program in Driver and Traffic Safety Education before recommending to the State Department of Public Safety that an instructor's permit be issued. The application shall be submitted on approved forms by the school in quadruplicate and typed to the Section of Driver, Safety and Health Education, State Department of Education. If the program meets all of the requirements and the teacher is properly qualified, the Section shall approve same and refer the applications to the Department of Public Safety, who will check the driving record of the instructor and issue the permit if the record merits the issuance of said permit.

II. RECORDS

There must be on file with the Section of Driver, Safety and Health Education at the State Department of Education of the State of Oklahoma:

A. A copy of the current instructor's permit approved by both the State Department of Education and the Department of Public Safety. Such permit shall be a prerequisite to any behind-the-wheel instruction.
B. A class schedule of each period of driver education in the school.
C. A list in quadruplicate (typed) of all students currently enrolled in the driver education program.
D. A list in duplicate (typed) of all students meeting the time standards: thirty clock hours classroom instruction and six clock hours behind-the-wheel for certification purposes only.
E. A list in duplicate (typed) of students satisfactorily completing the Driver and Traffic Safety Education Program.
F. Any other reports requested by the Section of Driver, Safety and Health Education of the State Department of Education.

The Section of Driver, Safety and Health Education of the State Department of Education will furnish to the school all forms for the

required reports.

III. DEFINITIONS

A. Completing: For the purpose of clarifying the term "completing" in (article IX, Section 352, O.S.L. 1965), the term shall be construed to mean, "The student has met all the time requirements of the course."

B. Simulators: A teaching method employing both films and an electro-mechanical device, designed to represent the driver's compartment of the automobile through which students develop proper judgment and behavior responses, as well as manipulative skills.

C. Multiple Car Driving Range: An off-street area on which a number of cars are used simultaneously to provide laboratory instruction under the supervision of one or more qualified teachers.

The area includes:

a) space for development of fundamental skills
b) road surfaces wide enough for two-way and multiple-lane traffic
c) intersections, curves and grades
d) lane markings, signs and signals
e) a method of communication between teacher and students by radio, loudspeaker or other effective means.

D. Behind-the-Wheel Practice: Supervision of student experience at the controls of a practice driving car either on-street or off-street.

IV. REIMBURSEMENT

A. First-Year Schools

When a school is attempting to participate in an approved Driver and Traffic Safety Education program for the first year, the State Department of Education may estimate the total number of students to complete the hours for said first year, based on certified reports by the school to the State Department of Education.

The State Department of Education shall, if funds are available after prorating money to schools that maintained a standard program the previous year, pay said first-year school not to exceed fifty per cent (50%) of the estimated cost for the current year. Said amount shall not exceed sixty-five ($65) dollars per pupil.

Every public school qualifying for reimbursement shall, upon conclusion of a school year, submit a report showing the complete cost of the program and a statement that all of the minimum standards have been met on forms supplied by the State Department of Education.

No reimbursement shall be made to any school for a summer program unless all of the provisions are met as described for the regular term. No fee shall be charged to the student for this program during the regular school year. A student fee for summer driver education may be assessed prior to the beginning of each annual summer program. The fee should not exceed that of fees charged for other summer school courses. (State Board of Education - April 26, 1979).

B. School with Driver and Traffic Safety Education Programs in 1966-67 Term and Prior Thereto

The State Superintendent of Public Instruction shall allow to each school district an amount equal to the actual cost, but in no case to exceed sixty-five ($65) dollars per pupil completing the time requirements in the Driver and Traffic Safety Education programs in that school district during the preceding fiscal year, in accordance with these regulations set forth by the State Board of Education to the school districts for instructing pupils in Driver and Traffic Safety Education.

C. Allowable Cost Basis

Driver and Traffic Safety Education program costs shall be based upon:

1. Salaries (pro-rata parts for Driver and Traffic Safety Education) of Driver Education instructors. In arriving at the cost of a program, the teacher's salary shall be calculated on the basis of the teacher's actual salary paid for teaching Driver and Traffic Safety Education.
2. Gasoline, oil, maintenance and insurance costs, including medical payments coverage, or Driver and Traffic Safety Education automobile.
3. Supplementary teaching materials and equipment directly related to Driver and Traffic Safety Education.

Such costs shall be determined in accordance with these rules and regulations submitted only on forms designed and furnished by the Section of Driver, Safety and Health Education of the State Department of Education.

It should be emphasized that any school allowing a teacher without an instructor's permit to instruct students during the 1966-67 school year or any following year shall not be eligible for reimbursement under the provisions of this Act.

V. INSTRUCTIONAL TIME REQUIREMENTS

Students to be counted by the school under these regulations shall receive a minimum of thirty (30) clock hours of classroom instruction and a minimum of six (6) clock hours of actual driving in the Driver and Traffic Safety Education car, all under a qualified Driver and Traffic Safety Education instructor.

Four (4) hours of observation time may be counted in earning the 30 hours in the classroom.

The Driver and Traffic Safety Education program shall be conducted a minimum of one (1) semester.

VI. SIMULATION

Simulators may be used to substitute for part of the time requirement in the "behind-the-wheel" phase of the program. Where such devices are used, a minimum of three (3) hours instruction must be given in the car, under actual driving conditions. The time spent on the simulators shall be at the ratio of 4 to 1. Four (4) hours on the simulator may be substituted for one (1) hour of actual behind-the-wheel driving experience.

All simulation used to substitute for the driving time shall be approved by the Section of Driver, Safety and Health Education of the State Department of Education, in keeping with the definition of simulation in "Policies and Practices for Driver and Traffic Safety Education" of the National Commission on Safety Education, National Education Association.

Teaching machines and other innovations may be used as a part of the classroom instruction and not simulation time. If the block system is used, the same instructor must teach simulation at each teaching station.

VII. SCHEDULING

All classroom time shall be scheduled in keeping with the regular scheduling policy for other subjects in the school curriculum. In accordance with the National Highway Safety Act of 1966 (P.L. 89-5641), scheduling shall be so arranged that no eligible student desiring to take the course shall be denied the opportunity. Such things as school transportation, students who cannot arrive at school earlier than the beginning of other classes, and students who must work after school, weekends and in the summer, usually cannot take Driver Education except during the regular school day. This must be taken into consideration in scheduling so that no eligible student is denied the course.

The "behind-the-wheel" part of the program should be scheduled in keeping with the needs of the students, as well as the convenience of scheduling on the part of the school. It is much better to schedule the behind-the-wheel phase at the same hour as classroom, and later in the semester if at all possible. At no time shall the Driver and Traffic Safety Education instructor teach the behind-the-wheel phase of the program with less than two (2) students in the car. It is highly recommended that the classroom, simulation (where used), and behind-the-wheel work be integrated to the extent that each of the phases supplement the others.

In a program where a teacher has five sections of Driver and Traffic Safety Education or more, it is recommended that one planning period per day be provided for conference, make-up work, etc.

Samples of scheduling of classes may be obtained on request.

VIII. STUDENT ELIGIBILITY

A student who takes Driver and Traffic Safety Education in any Public School of this state must show evidence that he is physically and mentally capable of receiving instruction in Driver and Traffic Safety Education under the provisions of the Law, and that he may profit from the course. Any student receiving instruction shall be:

a) at least 15½ years of age or,
b) a regularly enrolled student in the 10th, 11th or 12th grades of a public secondary school.

IX. SUMMER PROGRAMS

A summer term, or a summer school term, shall be approved by the Section of Instruction of the State Department of Education before Driver and Traffic Safety Education can be offered.

Eight (8) week terms for a summer school are preferred, but in special cases the application will be approved for four (4) week terms. Schedules shall be submitted to show how the required time is obtained. Since no school can depend upon all students getting the program during the summer term, there must be evidence of a real effort on the part of the school to reach all of the student body during the regular term.

X. SPECIFICATIONS FOR THE VEHICLE

1. The Driver and Traffic Safety Education car shall preferably be a 4-door sedan.
2. All Driver and Traffic Safety Education cars must be equipped with dual controls, side view mirrors (right and left), and front and rear seat belts.
3. All Driver and Traffic Safety Education cars shall be properly marked as such, and markings or signs should be detachable.
4. All dealer-loaned cars shall be used for Driver and Traffic Safety Education only.
5. ALL DRIVER AND TRAFFIC SAFETY EDUCATION CARS SHALL BE CLEARLY IDENTIFIED "STUDENT DRIVER" ON FRONT AND BACK OF VEHICLE IN A CLEARLY VISIBLE PLACE.

STATE BOARD OF EDUCATION - JUNE 25, 1970

XI. RESEARCH

Nothing in these regulations shall be construed to prevent genuine research for the purpose of developing more effective programs. Any school desiring to carry out research will be given consideration under these regulations upon proper application to the Section of Driver, Safety and Health Education of the State Department of Education.

XII. AMENDMENT PROCEDURE

These rules and regulations may be amended upon recommendation of the Commissioner of Public Safety and the Superintendent of Public Instruction and adopted by the State Board of Education.

DE - 10 (Type four copies) STATE DEPARTMENT OF EDUCATION COPY

APPLICATION

DRIVER EDUCATION INSTRUCTOR'S PERMIT

DATE September 1, 1982 School Year 19 82 - 19 83

West View High School	I-100	West View Drive	
Name of School	Dist. No.	Address	
West View	Smith	Oklahoma	73900
City or Town	County	State	Zip Code

TEACHER INFORMATION:

William H. Good	6-13-56	0654283690
Name	Date of Birth	Okla. Driver License No.

School where teacher last taught Driver Education West View Year 1981-82

MINOR ASSIGNMENT

College Credit Hours:
Driver Education I 3
General Safety 3
Driver Education II 3

ASSIGNMENT OF THREE (3) CLASS PERIODS OR MORE

Special Driver Education Standard
Teaching Certificate No. 136789
Temporary Certificate No.
Provisional Certificate No.
Expiration Date 6/30/83

NOTE: A teacher assigned to three or more class periods is required to have a certificate in Driver and Traffic Safety Education.

I hereby certify that the above report is complete and accurate.

Signature of Applicant William H. Good (Seal)

Subscribed and sworn to before me this 1 st. day of September, 1982.

My Commission expires June 30, 1984 Sally P Notary (Notary Public)

STATE DEPARTMENT OF EDUCATION
Section of Safety and Driver Education

APPROVAL

STATE DEPARTMENT OF PUBLIC SAFETY
Division of Traffic Safety Education

APPROVAL

Send all four copies to: Mr. Travis Tice, Administrator, Safety and Driver Education, 2500 North Lincoln Blvd., Room 353, Oklahoma City, Oklahoma 73105.

PERMIT NO. ISSUED

Each instructor teaching Driver Education in Oklahoma must have an instructor's permit issued by the Oklahoma Department of Public Safety. The application for Driver Education Instructor's Permit (DE-10) is made in quadruplicate. It is very important that every applicable line on this form be filled in and the applicant and a notary public sign all copies. Many applicants fail to give their Oklahoma Driver License number, school where they last taught driver education and college credit hours. The Special Driver Education Teaching Certificate number should be shown as the Standard or Provisional Teaching Certificate.

If the instructor's permit is issued in the fall it is valid the first semester, second semester and the summer term of the school year.

18

DE-10A (TYPE four copies)
(Rev. 6-30-78)

SDE Copy

STUDENT PERMIT

West View High School | 73900 | Smith | Sept. 1, 82 Beg. Yr. 19 82 - 19 83
Name of School | Zip Code | County | Date

SEMESTER: First X Second ___ (Check one) SEMESTER DATES: Beginning Sept. 1, 1982 Ending Dec. 17, 1982

Total Number of Students Enrolled 20 Classroom Load 10 Students

School owned or college contracted simulation X Yes ___ No. How many simulators are used? 10 (8-place, 8-place, 12-place, etc.)

NOTE: Item below may apply for instructors teaching the same students. (See Instructions) SCHEDULE MUST ALLOW FOR NECESSARY TIME REQUIREMENTS.

		Check periods taught	Hrs. taught daily			
1.	William H. Good (Instructor No. 1)	X 2 3 X 5 6		2 (Driver Ed.)	3 (Other)	5 (Total)
2.	_____ (Instructor No. 2)	1 2 3 4 5 6		_____	_____	_____
3.	_____ (Instructor No. 3)	1 2 3 4 5 6		_____	_____	_____

Number consecutively and single space.

TYPE Full Name (Last name first)	Date of Birth	Grade in School	Sex	Part II-Student Info: Completed minimum time requirement of 30 & 6 Yes	Completed minimum time requirement of 30 & 6 No	Was given credit for course completion Yes	Was given credit for course completion No
1	2	3	4	5	6	7	8
1. Able, Sammy John	2-10-65	10	M				
2. Ball, Janet Kay	9-3-65	11	F				
~~3. Catcho, John Wade~~ ~~15yrs-8Mos-8Days~~	~~6-23-67~~	~~9~~	~~M~~		Too Young		
20. Utah, John Cheyenne	3-1-66	10	M				

(If more space is needed, use DE-10-A Supplement)

Columns 5, 6, 7 and 8 are to be completed after course completion and submitted as Part II (Student Information) with Application for Reimbursement, DE-10-2

For Reimbursement Only

I (We) hereby certify that the above report is complete and accurate.

1. William H. Good
2. _____
3. _____

Signature of Instructor(s)

State Department of Education
Section of Driver & Safety Education

Approval

State Department of Public Safety
Driver Licensing Division

Approval

NOTE: The number of students per class should not exceed the number possible to service at the curbing the wheel phase during the school day. If a variation occurs, enclose a schedule showing how the required hours will be met. Any teacher assigned to three or more class periods is required to have a certificate in Driver Education.

The Student Permit (DE-10A) is used in lieu of a driver's license for students listed on this form. Each line on this form should be filled in. The starting and ending dates indicate the time in which the instructor(s) can legally drive with the listed students. Only the periods that driver education is taught by each instructor should be checked. When listing, students names should be alphabetical and numbered consecutively with the student's full name, date of birth, grade in school, and sex. Students must be 15½ years of age on date course begins or a 10th, 11th or 12th grader.

DE 10B
Revised 6/81

SDE Copy

ADJUSTMENT

West View High School — Name of School
73900 — Zip Code
Smith — County
Oct. 5, 1982 — Date
School Year 1982 1983

Semester: First ___ X ___ Second ___ (Check one)

Semester Dates: Beginning Sept. 1, 1982 Ending December 17, 1982

STUDENTS TO BE ADDED

(Number consecutively and single space)

	Full Name (Last name first) (1)	Date Enrolled (2)	School Transferred From (3)	Date of Birth (4)	Grade in School (5)	Sex (6)	Part II Student Information: Computer Memorization Time Requirements (Q1 20 and 6) Yes (7)	No (8)	Was Given Credit For Course Completion Yes (9)	No (10)
1	Jones, Robert James	9-10-82	East Valley	11-3-65	10	M				
2										

FOR REIMBURSEMENT ONLY

STUDENTS TO BE DROPPED

(Continued)

(Number consecutively and single space)

	Full Name (Last name first)	(Continued)
1	Utah, John Cheyenne	
2		

(Continued)

William H. Lord
Instructor

State Department of Education
Approved

State Department of Public Safety
Approved

Student adjustments (DE-10B) are used when students are added or dropped. The full name of each student added or dropped must be given. When adding students, the date enrolled, school transferred from (if any), date of birth, grade and sex should be listed. Form DE-10B is supplementary to DE-10A for students added. Since forms DE-10, 10A and 10B authorize the instructor to ride with unlicensed drivers, the green copies of the forms should be kept in the Driver Education Vehicle at all times. The pink copies are second copies and should be kept in the school offices.

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APPLICATION FOR REIMBURSEMENT

"Motor Vehicle Driver Education Fund"
School Year Ending June 30, 1981

State of Oklahoma

Name of School West View High School

District Number I-100 Street Address West View Drive

City or Town West View State OK Zip 73900 County Smith

Type two copies, keep one, mail the original to Travis Tice, Administrator, Section of Safety and Driver Education, State Department of Education, Oliver Hodge Building, Room 353, Oklahoma City, OK 73105.

PART I: Allowable Expenditures

A. Teachers

Full Name of Instructor(s) (List separately)	Instructor's Salary 1980-81 *Regular Term	Summer Term	Leave This Space Blank
1. William H. Goo	15,980.00		
2.			
3.			
4.			
5.			

* This should be listed as State BASE SALARY.
NOTE: For more than five teachers, list on form DE-10-2B.

B. Automobile Expense (Driver Education car only, paid by SCHOOL)

1. Gasoline: gallons used 230		Cost	$ 276.00
2. Oil, grease, wash		Cost	$ 37.15
3. Repairs		Cost	$
4. Insurance		Cost	$ 400.00
5. Automobile Cost		Cost	$
a. If purchased by school and used for high school Driver & Traffic Safety Education only, this expense may be pro-rated over a period not to exceed five years, by special agreement with the State Department of Education. Total Cost $ 8,000.00			
Pro-rated this year		Cost	$ 1600.00
b. If leased		Cost	$
6. Other automobile expense (list item and cost below)			
Outside Mirror	$ 25.00	Cost	$ 25.00
Install Dual Brake	$ 35.00	Cost	$ 35.00
		Cost	$
	Total (1-6)	Cost	$ 2373.15

7. Total miles Driver Education car(s) was (were) driven during the year 8675
8. Miles actually driven in high school Driver and Traffic Safety Education 6576
9. Total number of cars used by this school system: Loaned _____ Leased _____ Purchased 1 Total _____
10. Was the dealer-loaned automobile used for anything other than Driver Education? Yes _____ No X

(over)

C. Teaching Materials & Equipment Directly Related to Driver & Traffic Safety Education

1. Film or film rental	Cost	$	20.00
2. Teaching machines (if lease-purchased, amount paid this year)	Cost	$	
3. Simulators (may be pro-rated over a period not to exceed 5 years by special agreement with the State Department of Education) Total Cost $ _____ Pro-rated this year	Cost	$	
4. Psycho-physical testing equipment	Cost	$	265.00
5. Dual controls	Cost	$	60.00
6. Identification signs (for automobile)	Cost	$	14.50
7. Books (not counting state-adopted texts furnished by Textbook Division & periodicals		$	
8. Charts, etc.	Cost	$	19.95
9. Mock-ups	Cost	$	
10. Other teacher materials (list item and cost below) Textbook Test Books	Cost	$	10.00
	Cost	$	
Total (1-10)	Cost	$	389.45

11. Were students charged a fee for taking Driver Education during the summer only of 1981? ..... No
If yes, what was the amount of Student fee? .....
12. Do you use the State Special Driver Education tag on your dealer-loaned car? ..... Yes

PART II: Student Information

Do not count those students in this report who completed the course after June 30, 1981.
(Summary from DE 10-A and DE 10-B) SEE INSTRUCTIONS

(1) Summer – after June 30 1980		DE 10-A's for corresponding periods attached to complete Part II Student Information.
(2) 1st Semester – 1980-81	20	
(3) 2nd Semester – 1980-81	20	
(4) Summer – before July 1, 1981		
(5) Total number of students finishing time requirements as listed in column 5, (DE10-A) form DE 10-A and column 7, DE 10-B should equal 1, 2, 3, and 4 above ..... Total	40 (1, 2, 3 & 4)	

I hereby certify that the above report is complete and accurate.

Vonda C. Superintendent
(Signed by high school principal or superintendent)

Subscribed and sworn to before me this 20th day of October, 19 81.

My commission expires June 30, 19 84.

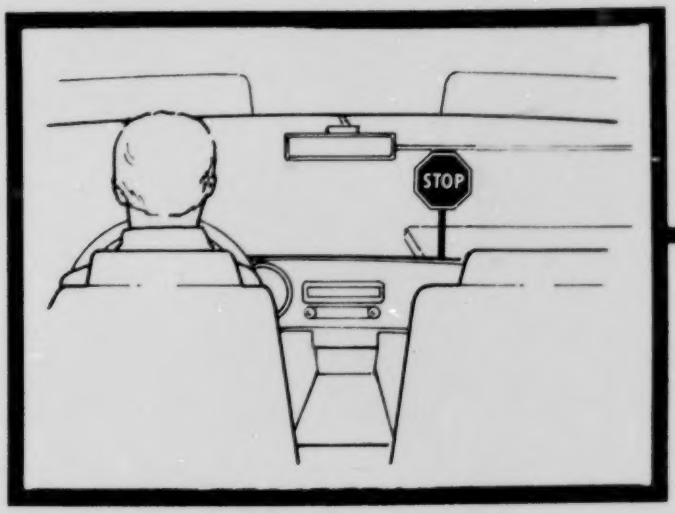
Sally P Notary
(Notary Public)

(Seal)

The application for reimbursement (DE-10-2) is the form used for schools to receive payment for students that received thirty (30) clock hours of classroom and six (6) clock hours behind-the-wheel instruction the past school year.

It is important that each instructor answer Part II Student Information on each student on the Student Permit (DE-10A) and adjustment (DE-10B) on completion of each semester's course. A completed copy must accompany the reimbursement form.

The Driving Task



UNIT 2

OVERVIEW:

This chapter represents the heart of the Driver Education program, the driving task. The instructor should note that the outline format of this chapter should be thoroughly supplemented with additional resources.

PERFORMANCE OBJECTIVES:

The major content areas of the chapter are:

2.1 Vehicle control and natural forces

2.2 Controls, gauges and instruments

2.3 Checks and procedures

2.4 The driving task

2.5 Dealing with emergencies

2.6 The driver and decision making

2.7 The transportation system

2.8 Program Evaluation

2.1 PERFORMANCE OBJECTIVES: The learner will be able to

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
2.1 Inertia	Explain that Newton's First Law of motion, commonly called inertia, means that all objects at rest tend to stay at rest, and objects in motion tend to stay in motion in a straight line unless a force acts upon them.
	How does this apply to vehicles? starting the motions of a vehicle? stopping a vehicle?
Friction	Explain that friction occurs when two surfaces slide across each other. The total frictional force depends upon the roughness of the two surfaces and how hard the surfaces are pressed together. The result of friction is heat and noise.
	How can friction be reduced?
	How is friction good?
	How is it bad?
	What if there were no friction?
Centripetal and Centrifugal	Explain how these forces relate to obejcts moving in nonlinear paths.
	How do these forces apply to an auto turning a corner?

identify forces which influence the basic control tasks.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Two students play catch with a tennis ball then with a medicine ball. Explain how the inertia of each is different.	Any good high school physics book will have chapters on force and motion. Invite your physics teacher to talk to the class
Students rub their hands vigorously on a variety of surfaces. Explain the results.	
Twirl a weight on the end of a string, Where is the Centripetal force? The Centrifugal force? Release the string. What happens? Why? How does this apply to the vehicle?	

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Environmental Factors	Explain how environmental factors can change both the roadway characteristics and the vehicle performance. How does this influence basic control tasks?
Forces and Driving	Create traffic situations which require speed and/or direction control and explain the forces to be dealt with. Discuss common direction and speed control errors and the forces that are acting.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Have students bring remote control toy vehicles and demonstrate forces and environmental factors and their influence upon basic control.	Oklahoma Driver Manual Oklahoma Department of Public Safety 3600 North Eastern Oklahoma City, OK 73105

OVERVIEW:

The students will learn the location and function of vehicle controls, gauges and instruments.

OBJECTIVES:

2.2.1 The learner will be able to identify speed and direction controls.

2.2.2 The learner will be able to identify and discuss the function of vehicle gauges and instruments.

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
2.2.1 Speed Controls	Using a wall chart or overhead transparency, show the direction controls and duscuss their function.
2.2.1 Direction controls	Using a wall chart or overhead transparency, show the direction controls and discuss their function.
2.2.2 Gauges and instruments	Using a wall chart or overhead transparency, show the vehicle guages and instruments, and explain their function.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Locate the speed controls on the driver education car or simulator.	Sportsmanlike Driving
Locate the directional controls on the driver education car or simulator.	Oklahoma Drivers Manual
Locate the instruments and gauges on the driver education car or simulator.	

OVERVIEW:

The students will learn proper procedures for pre-start, starting, stopping and securing the vehicle.

OBJECTIVES:

2.3.1 The learner will be able to perform outside vehicle checks.

2.3.2 The learner will be able to perform pre-start checks.

2.3.3 The learner will be able to perform starting procedures.

2.3.4 The learner will be able to perform stopping procedures.

2.3.5 The learner will be able to perform securing procedures.

2.3 PERFORMANCE OBJECTIVES: The learner will be able to

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
2.3.1 Outside vehicle checks	Discuss with students why it is important to make outside checks of the vehicle before you get started. Tell why many small children get killed each year while playing in the family driveway.
2.3.2 Pre-start procedures	Discuss all the appropriate pre-start check procedures in proper order and the problems that drivers could encounter if they do not do the sequence of procedures in order. Discuss the reasons for wearing seat belts.
2.3.3	Discuss with students all the appropriate start procedures in proper sequence.

perform appropriate checks and procedures.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Have students make outside checks for children, broken glass, tree branches, etc. that may be under the car or in the path they plan to take.	AAA, Traffic Engineering and Safety Department AAA Driver Improvement Program - Module #3, Communicating Falls Church, VA
Have the students go through the pre-start procedures in correct order, either in simulation unit or the driver education vehicle.	Drive Right Teacher's Edition Copyright 1982 Scott, Foresman and Company
Have the students contact a claims adjuster in the company that insures your family car. Ask if he or she can tell you how often safety belts are used in cases where a claim is made following an automobile accident.	Driving Teacher's Guide Safe Performance Ginn and Company
Have the students cut out newspaper clippings about accidents and make a report on how many were using their seat belts and how many were not.	
Have the students practice pre-start procedures in proper sequence in either simulation unit or driver education car. Have the students write the starting procedures in proper sequence. Have the students practice start procedures in proper sequence in either simulation unit or driver education car. Have the students write the starting procedures in proper sequence.	

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
2.3.4	Discuss appropriate stop procedures in sequence.
2.3.5	Discuss with the students all the appropriate procedures, in sequence, involving securing the vehicle.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Have the students practice stopping procedures in proper sequence in either simulation unit or the driver education car. Have the students write the stopping procedures in proper sequence.	Simulation unit or off-road area range.
Have the students practice securing procedures in proper sequence in either simulation unit or in the driver education car. Have the students write the procedures in sequence for securing the vehicle.	Simulation unit Range off-road areas.

OVERVIEW:

Students will be introduced to basic skills and procedures needed for the driving task.

OBJECTIVES:

2.4.1 The students will be able to follow the proper procedures at all intersections.

2.4.2 The students will be able to demonstrate the proper following procedures.

2.4.3 The students will be able to demonstrate appropriate driving abilities when joining or meeting other traffic.

2.4.4 The students will be able to perform the proper procedures in making a lane change.

2.4.5 The students will be able to demonstrate the proper procedures when making a passing maneuver.

2.4.6 The students will be able to cope with other roadway users in a safe efficient manner.

2.4.7 The students will be able to appropriately respond to roadway changes.

2.4.8 The students will be aware of the performance capabilities of the vehicle.

2.4.1 PERFORMANCE OBJECTIVES: The student will be able to

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Intersecting Merging Approach techniques Alternate paths Lane selection Highway settings Legality Maneuvers (left, right, straight, slow, stop) Traffic controls Right-of-way Visual Techniques	Describe procedures and contingencies related to "intersecting task" and demonstrate the use of human functions through solving intersection task problems in a safe and efficient manner.

2.4.2 PERFORMANCE OBJECTIVES: The student will be able

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Following other vehicles and road users Basic techniques Stopping distance Visual techniques Estimation of time Measurement of distance (method and techniques) Judgment of spacetime Relations Operator alternatives Speed control Influence of vehicles entering and leaving roadway, tec. Influence of roadway changes	Describe bacis "following vehicle" techniques and contingencies related to the headway task and demonstrate through the use of human functions a safe and legal following distance under all highway setting conditions. Discuss with the students the two-second rule dealing with following distance.

follow proper procedures in all intersections.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Observe traffic at two intersections for 15 minutes each and list driver errors observed. The class can develop conclusions based upon the facts gathered. Using a traffic board, illustrate to the class various types of marked and unmarked crossings. Discuss how, why, and where these crossings are laid out and what laws govern their use. Using the same format, discuss intersections where the crossings are not marked. Describe in your own words the visual techniques you would use in approaching any intersection.	Transparencies Easel Magnetic Traffic Board Bumpa-Tel Incorporated Cape Girardeau, MO 63701

to demonstrate proper following procedures.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Search local newspapers for accident reports that might be attributed to improper following distance. Write a brief summary of your findings. Interview five drivers on how they decide following distances. Write a brief conclusion on each. As a passenger, observe following techniques of other highway users and list their errors. Demonstrate in the driver education car a correct following distance procedure.	Daily Oklahoman 500 North Broadway Oklahoma City, OK 73125

2.4.3 PERFORMANCE OBJECTIVES: The student will be able or meeting other traffic.

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Meeting vehicular traffic and other road users - Lateral alignment - Lane selection - Seeing technique - Vehicles in a line - Selection of meeting point and speed control - Alternative paths - Roadway hazards	Describe the techniques for meeting other vehicular traffic, and demonstrate the use of the human functions maintaining safe lateral placement on the roadway when confronted with oncoming vehicular traffic.

2.4.4 PERFORMANCE OBJECTIVES: The student will be able

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Lane changing - Speed adjustment - Visual techniques - Optimum lane change opportunities - High risk lane change - Street patterns - Traffic flow effectiveness - Judgment of lateral and longitudinal dimension (time, space, distance) - Factors influencing lane changing decisions - Lane changes followed by maneuvers - Route planning	Describe the procedures and contingencies related to safe and efficient "lane changing" and demonstrate the use of the human functions in safe and legal lane changing in various highway settings under existing road and traffic conditions.

to demonstrate appropriate driving abilities when joining

LEARNING ACTIVITIES	RESOURCE MATERIALS
Using commentary driving, identify clues other vehicles exhibit which may be possible hazards as you meet them and state the alternatives available.	35 mm Film Strip Hazard Perception Bumpa-Tel Incorporated Cape Girardeau, MO 63701
View slides of approaching users and make predicitions about their possible actions.	Transparencies Bumpa-Tel Incorporated Cape Girardeau, MO 63701
Write a description of the visual techniques you should use in lane changing.	

to perform the proper procedures when making a lane change.

LEARNING ACTIVITIES	RESOURCE MATERIALS
List five locations that could create a hazardous situation if you change lanes.	Use city maps of the particular town you live in.
In the Driver Education car, demonstrate safe and proper lane changes in all traffic situations.	Map from Department of Public Transportation State Capitol Complex Oklahoma City, OK

2.4.5 PERFORMANCE OBJECTIVES: The student will be able maneuver.

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Passing other vehicular traffic Restrictions and legal requirements (laws) Optimum passing conditions High risk passing conditions Visual techniques Decision-making points in passing maneuvers Speed change patterns Factors inducing questionable operator performance.	Describe the basic techniques and procedures in "passing" other motor vehicles in various highway settings and demonstrate the use of the human functions through performing safe passing maneuvers under existing roadway and traffic conditions.

to demonstrate the proper procedures when making a passing

LEARNING ACTIVITIES	RESOURCE MATERIALS
List the three questions the driver should ask himself each time he decides to pass another vehicle: 1) Is it necessary? 2) Is it legal? 3) Is it safe? Use local situations to illustrate examples for each question. Demonstrate in the car the judgment and skills essential for making a safe pass of another vehicle. Explain why it is unsafe to pass where it is illegal on a two-lane highway. List the critical decisions that must be made when passing another vehicle and decide where in the passing maneuver these decisions must be made. Develop a chart or graph showing the time and space factors needed to pass at various speeds. Video tape passing situations and discuss them in class. Use off road area for practice passing.	Film Strips Chevrolet Motor Division Merchandising Dept. New Cars General Motors Bldg. Detroit, Michigan 48202 1) Situations on controled access highways 2) Intersections

2.4.6 PERFORMANCE OBJECTIVES: The student will be able manner.

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Coping with roadway users Entering Leaving Stopping Slowing Crossing	Interpret probable hazards generated by traffic and other roadway users and demonstrate through the use of human functions. Correct operator behavior when coping with "changing traffic patterns".

to interact with other roadway users in a safe, efficient

LEARNING ACTIVITIES	RESOURCE MATERIALS
Take part in a buzz session. After the class has been divided into groups and group leaders designated, view a picture (slide) of a particular type of roadway user in various traffic settings. Discuss your findings and have leader present them to the class. Discuss the hazards that various types of animals may present to the motorist. Emphasize how to be prepared for these dangers and how to cope with them when they occur.	I.P.D.E. Doron Corporation Simulation Films Department of Public Safety 3600 North Eastern Oklahoma City, OK 73105 Films and Slides

2.4.7 PERFORMANCE OBJECTIVES: The learner will be able

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Coping with roadway change Hills Curves Number of lanes Surfaces Dips Bumps Narrowness Bridges Other	Interpret "roadway changes" within highway settings and demonstrate through the use of the human functions safe and efficient procedures for coping with roadway irregularities.

2.4.8 PERFORMANCE OBJECTIVES: The student will be aware

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Judgment of vehicular abilities by class	Instructor will utilize materials from the manufacturers to explain how the vehicles will react in various situations. Instructors who have developed a driving range will utilize this for various driving situations. Important items to consider are stopping distance, turning radius, acceleration time, etc.

to appropriately respond to roadway changes.

LEARNING ACTIVITIES	RESOURCE MATERIALS
List five locations that could create a hazardous situation if you change lanes.	Use city maps of the particular town in which you live.
In the Driver Education car, demonstrate safe and proper lane changes in all traffic situations.	Map from Department of Public Transportation State Capitol Complex Oklahoma City, OK
Students will participate in driving range procedures which simulate alternate route, skid pans, escape routes.	Ford Motor Company Dearborn, MI General Motors Assembly Plant Midwest City, OK

of the performance capabilities of his vehicle.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Given the roadway changes, describe how each would affect the driving task.	

2.4.8 PERFORMANCE OBJECTIVES: The student will be aware

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Conditions of lessened stability From protected to unprotected areas Being passed by large truck Encountering an oncoming truck Passing a truck	Describe the procedure and process for operating under conditions of lessened stability.
Signs and Symptoms of Vehicle Malfunction Ignition Starting Power loss Stalling Fuel system Engine smoothness Starting Compression and power loss Sensory feedback Foreign substance Stuck vehicle Prevention Equipment Procedures Skidding Deceleration skids Acceleration skids Directional skids Basic procedures Conditions Following vehicles Weather Speed laws Speed control and adjustments Use of lights Seeing techniques Visual distortions Visibility equipment	Describe signs and symptoms of vehicle malfunction, demonstrate an awareness for these signs and symptoms when operating a motor vehicle, choose only to operate a safe motor vehicle, and demonstrate the capability of constructing a plan for maintaining a vehicle in class.

of the performance capabilities of his vehicle.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Identify critical conditions that exist when a vehicle is in a deceleration skid, and directional skid, listing operator techniques that improve regained control. Using a model car and an incline board, secure one front wheel with tape; both front wheels; both rear wheels; and all four wheels to show the effects of different types of skids.	Department of Public Safety 3600 N. Eastern
Demonstrate sliding friction utilizing a variety of different materials for the two surfaces. The changes in the resistance are noted (friction) as the various materials are employed. For example, a metal, wood, rubber, or ice is substituted for the book. The desk surface is altered by adding sand, lubricant and water. Describe the "rocking" process that aids removing a stuck vehicle.	U.S. Weather Bureau 6500 S. MacArthur Oklahoma City, Ok
View Slide presentation with the slide partially obscured by celluloid in the following manners: (a) with chalk dust, (b) with water, (c) with grease or oil. Formulate measures under the driver's control to prevent or compensate for lessened visibility conditions.	

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Conditions of Lessened Traction Snow and Ice Starting Stopping Change of direction Pedestrian behavior Temperature change Hazards Surface testing Visual techniques Fog and Rain Visual techniques	Describe procedures and processes for operating under conditions of lessened traction, demonstrate ability to operate a vehicle safely and legally when confronted with conditions of lessened traction and demonstrate willingness and acceptance for safe and legal behavior when operating under conditions of lessened traction.
Conditions of Lessened Visibility Night Driving Reduced vision Visual adapting Seeing techniques Reading panel lights Head lamps--operator and other users Over-driving head lamps Judgment of speed problems Glare Smoking Speed differences and control Emergency flashers and vehicle markers Pedestrians Operating on curves Meeting oncoming vehicles Overtaking and passing	Describe procedures and processes for operating under conditions of lessened visibility, demonstrate ability to operate a motor vehicle legally and safely under conditions imposed on other highway users resulting from lessened visibility.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Use video taping of night driving to discuss traffic situations.	
Use Department of Public Safety personnel to talk to class on traffic.	
Identify and explain various critical driving situations you have observed. Through class discussion, analyze each situation and explore the reasons the driver responded as he did. Relate the responses to the human functions (identify, predict, decide and execute). Discuss highway user errors by comparison of age, sex, and activity association. Discuss the reasons for individual differences in risk acceptance in deliberate acts such as reckless driving, negligent operation, and drag racing.	Washington Traffic Education Guide Department of Education Olympia, WA 98504

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Acceleration capability	
Syspension system	
Vibrations	
Tracking	
Sway	
Wheel balance	
Stability	
Oil and filtration system	
Level	
Time	
Mileage	
Pressure	
Tires	
Vibrations	
Wander	
Wear	

LEARNING ACTIVITIES	RESOURCE MATERIALS
Using a standard check list, perform a safety check on your family vehicle. Read a manufacturer's maintenance book on a particular model of automobile. List briefly when periodic maintenance should be accomplished. Take a tour of an auto manufacturing plant.	

2.5 Dealing with Emergencies

OVERVIEW:

The student will become familiar with various types of insurance coverage and requirements. They will also learn how to prevent or minimize injury and damage in an accident.

OBJECTIVES:

2.5.1 The student will be able to identify various insurance types.

2.5.2 The student will be able to demonstrate appropriate behavior at an accident scene.

2.5.3 The student will be able to identify techniques for reducing chances of injury in accidents.

2.5.4 The student will be able to identify passenger and vehicle protection devices.

2.5.5 The student will be able to perform appropriate procedures for special driving conditions.

2.5.1 PERFORMANCE OBJECTIVES: The student will be able

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Automobile Liability Insurance Form of financial responsibility Nature and purpose of automobile insurance Types and range of protection (ie., no fault) Rate determination assigned risk and compulsory plans	Classify and describe the types of automobile protection preference for coverage appropriate for today's claims.

to identify various insurance types.

LEARNING ACTIVITIES	RESOURCE MATERIALS
A small group of students interviews an Oklahoma State trooper on the minimal financial responsibilities requirements of Oklahoma, and under what conditions this law applies, and then reports back to class.	Department of Public Safety EMT'S 3600 North Eastern Oklahoma City, OK 73105
Have an insurance man speak to the class discussing the various types of automobile insurance, and the consequences due to a poor driving record.	State Insurance Commission Will Rogers Memorial Office Building Oklahoma City, OK 73105
Describe a simple one-car accident, illustrating total negligence. From this illustration, other factors (another car, yield sign, chuck holes) can be presented which complicated total negligence. Students then state why liability insurance is or is not beneficial in each case. After all types of insurance are discusses, an earlier collision situation can be recalled and negligence established. The amount and type of insurance of each owner involved can be stated, and each student can analyze the facts to determine the costs to be paid by each person involved. Two students visit a local insurance agent to discuss the cost of a typical vehicle insurance policy. They can report their findings to the class.	

2.5.2 PERFORMANCE OBJECTIVES: The student will be able

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Moral duties Collision reporting Requirements Nature of report Operator's collision report Enforcement investigator's report Insurance report	Work with students on the forms that they will encounter if involved in a traffic accident. Visit with the local or county law enforcement agencies. Have them visit the class. Also utilize insurance agents.
Legal requirements and consequences for negative behavior Leaving the scene (moral and legal) Hit and run Responsible and prudent Neglect of duty Financial responsibility	Discuss the steps to be taken when involved in an accident or coming upon an accident.
Highway User--Police Interaction (work sequence) Route to scene (method) Stopping at scene Assisting the injured Emergency medical services Continuing traffic flow Marking and controlling the scene Collision report Judicial action	Define and demonstrate reception (receipt) of highway user--police interaction.

to demonstrate appropriate behavior at an accident scene.

LEARNING ACTIVITIES	RESOURCE MATERIALS
An oral report will relate why it is vitally important to provide accurate identification and surveillance of the collision scene when reporting an accident. In the school parking lot, have the students role play what to do at the scene of an accident. Make a diagram illustrating the legal requirements and moral obligation of a driver, passenger and witness at the scene of the accident. Using your role playing accident, have each student fill out an accident report form and an insurance report form for the role-playing accident. Have a police officer discuss the legal requirements and consequences for negative behavior.	Department of Public Safety 3600 North Eastern Oklahoma City, OK 73105

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
First aid Emergency medical services Identification and surveillance of collision locations Police traffic control	With the aid of a model car and an incline board, demonstrate how speed affects the force of impact. Let the model car roll down one half the board at a very low angle (20 degrees); then let the model roll down the full board at a 45 degree angle. Describe procedures and responsibilities for controlling the collision site.
Post collision responsibility Highway user Degree of involvement Driver Passenger Witness At the scene Legal requirement	Define highway user behavior at the scene of a collision and demonstrate a choice for legal behavior.

LEARNING ACTIVITIES

Analyze charts and graphs of traffic accident data from city, county, and state reports to determine the underlying reasons for the reduction of property damage, injuries, fatalities and further economic loss.

Prepare a story of a hit and run accident. Explain why leaving the scene of a collision is an act of negligence and what consequences could result because of this act.

RESOURCE MATERIALS

Oklahoma State Insurance Commission
Will Rogers Building
Oklahoma City, OK 73105

Department of Public Safety
3600 North Eastern
Oklahoma City, OK 73105

Oklahoma Medical Association
601 Northwest Expressway
Oklahoma City, OK

2.5.3 PERFORMANCE OBJECTIVES: The student will be able accidents.

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Collision Statistics Injury prevention Speed Probability of protection Nature of injury Distribution of passengers Advantage of remaining packaged Second impact Age and size variability	Interpret and construct a model of the local, state and national collision picture.
Child restraining devices Minimize Impact Kind of crashes Kind of injuries Severity of injuries Natural forces Kinetic energy Force of impact Selection of collision courses	Describe the concept of minimizing impact forces and when given situations demonstrate awareness of collision severity factors by choosing the best alternative.

to identify techniques for reducing chances of injury in

LEARNING ACTIVITIES	RESOURCE MATERIALS
Make a pie chart showing the most common injuries that are the results of the occupant's colliding with some parts of the automobile's interior, explaining how the severity of these injuries could be reduced.	Department of Public Safety 3600 North Eastern Oklahoma City, OK American Motorists Association Oklahoma Medical Association 601 Northwest Expressway Oklahoma City, OK National Automobile Manufacturing Assoc.
In minimizing a collision, the driver should consider the following principles: (a) aim for the softest landing, (b) try to hold a straight course, and (c) stay with it. Describe in your own words what each of these statements means to you.	
View diagrams or slides of situations where an accident is imminent.	
Discuss alternate responses to the situations. Rank alternate routes according to degree of safety.	
Develop a model skid sled with some object riding in the sled, showing the effects of no belt use; lap belt; shoulder belt; and lap and shoulder belt combined.	
Visit auto repair yards. Make a film or slide presentation.	

2.5.4 PERFORMANCE OBJECTIVES: The student will be able

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Dash Receded Padding Door Locks Protected Unsafe procedures Posts and supports Padding Resistance Restraining devices Belts Lap Shoulder Usage Position Tightness Combination Equipment regulations Towed trailer Motorcycle School bus Bicycle Bumpers	The instructor will utilize materials from the manufacturers to show what safety devices and materials have been built into the modern automobile. The instructor will make use of films, slides and video tapes to show usage of safety devices.

to identify passenger and vehicle protection devices.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Provided with a picture of the interior of an automobile, identify all of its safety packaging equipment. Illustrate, either by a drawing or a short paragraph, how this piece of equipment could save you in an accident.	American Motorists Association Oklahoma Medical Association 601 Northwest Expressway Oklahoma City, OK National Automobile Manufacturing Assoc. General Motors Assembly Plant Midwest City, OK
Compare an older model car with your driver education car to see how projections and edges have been eliminated so chances of injury are reduced.	

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Packaging Equipment for Occupants Standards Crash qualities Testing criteria Required equipment Protection Windshield High penetration restraining Low penetration Steering Padding	Describe the best safety packaging features of an automobile, and demonstrate the value of these through vehicle selection and use when operating motor vehicles.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Develop an accident chart map for your (or section of) city. Analyze the chart for underlying reasons for concentrations of accidents.	Department of Public Safety 3600 North Eastern Oklahoma City, OK
In a group discussion, collect data on the required vehicle safety equipment for accident prevention. Choose one of six categories: automobiles, towed trailers, motorcycles, school buses, bicycles, and trucks.	National Motor Carriers Motorcycles Association United States Department of the Interior Park Service Northwest Third Street Old Post Office Building Oklahoma City, OK

2.5.5 PERFORMANCE OBJECTIVES: The student will be able conditions.

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Special Driving Conditions Hill driving Mountain driving Desert driving Changing conditions Power steering Preventative maintenance	Describe and demonstrate performance capabilities in special driving conditions.
Tire failure--steering Front Rear Direction of pull Blow out Securing vehicle Prevention	
Acceleration pedal sticks Causes Procedures	
Engine stalls Conditions Procedures	
Run off the road Lose control Pushed off road Left by desire Decisions and alternatives	

to perform appropriate procedures for special driving

LEARNING ACTIVITIES	RESOURCE MATERIALS
Observe slides of the various special driving conditions: hills, mountain and desert driving; and comment on the problems that are present under these conditions.	Dayton Tire and Rubber Company 2500 South Council Oklahoma City, OK
Your group will discuss the following questions: What would you do if you were driving and the brakes failed, tire failure, accelerator sticks, lights failed, engine stalls, or a wheel drops off the pavement?	Goodyear Tire and Rubber Company 5720 Northwest Fourth Oklahoma City, OK
List in order the best actions to take for the situations described in the questions. You are not to use references. Each group leader will read his list to the class and additions and corrections will be made as necessary.	General Motors Assembly Plant Midwest City, OK

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Response to Vehicle and Operator Failures Kinds of brake failure Sinking Fading Spongy Grabbing Wet Mechanical Brake failure--corrective procedures Pumping Testing Down-shifting Escape route Kinds of steering failure Vehicle stalls Tire options Cooling system Slow and fast idle Water level Fan belts Guages Maintaining Vehicle Service Authorized dealer Self-service station Owner's check Owner's manual Checks Periodic system checks Trips Seasonal Routine Warranty Preventive maintenance Records Service	Describe operator and/or vehicle failure, demonstrate ability to cope with operator and/or vehicle failures in given highway settings.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Students will visit an automotive dealer--visit with the mechanics and interview them on various systems of the automobile; why they fail and what can be done to prevent these failures.	General Motor Assembly Plant Midwest City, OK
Visit local automobile dealers. Discuss with mechanics how to spot and diagnose possible symptoms of vehicle malfunction.	

2.6 THE DRIVER AND DECISION MAKING

OVERVIEW

Students will become aware of the principles of perception and will develop skills in the application of the IPDE process.

PERFORMANCE OBJECTIVES:

2.6.1 The student will be able to identify the sensory channels and explain their function.

2.6.2 The student will be able to list principles of perception.

2.6.3 The student will be able to apply the IPDE process.

2.6.1 PERFORMANCE OBJECTIVES: The student will be able to

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Sensory channels: Vision Auditory (hearing) Tactile (touch) Kinesthetic (motion Olfactory (smell)	Make students aware of the relation between motor vehicle and the sensory channels. Describe the role of the various senses.
Vision: Kinds of Visions: Central vision, Peripheral vision Visual Capabilities: Acquity Depth perception	Make the students aware of the kinds of vision and visual capabilities. Evaluate student capabilities in terms of standards required for motor vehicle operation.

identify the sensory channels and explain their function.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Students will print the sensory channels on large cards.	Oklahoma Medical Association 601 NW Expressway Oklahoma City, OK 73118
Students will illustrate the sensory channels on large posters.	Physical Science - A Search For Understanding 1977 - Lippincott Keystone Industrial Park Seranton, PA 18512
Make a chart which indicates the relationship of the sensory channels to specific parts of motor vehicle operation.	
Students will design charts or models showing the difference in kinds of vision.	Oklahoma Optometric Assn. 4545 Lincoln Boulevard Oklahoma City, OK 73105
Devise criteria for visual capabilities that should be used in driving examinations.	

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Color Night Glare vision Glare recovery Peripheral Visual requirements: Corrective measures Seeing techniques Reference Points: Centering on path Scanning Mirror checks Blind spots	Demonstrate visual techniques in driving situations
Auditory (hearing) importance Kinds of receptions Requirements Corrective measures	Make students aware of the importance of hearing as a vital part of the operation of a motor vehicle.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Interview resource people who deal with correction of vision problems.	
Use video taping to explain various seeing techniques.	Media Section State Department of Education 2500 North Lincoln Oklahoma CIty, Ok 73105
Student will work on skills designed to benefit them in driving (1) Avoidance of music Too loud in car which would affect them hearing the condition of the car.	Oklahoma Department of Health - N.E. 10th and Stonewall Oklahoma City, Ok 73152

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Tactile (touch) importance Kinds	Make students aware of how touch is important in the operation of a motor vehicle.
Olfactory (smell) importance Kinds	Work with the students on various types of fuels, chemicals, electrical systems, etc. to acquaint them with how important this sense is in the operation of a motor vehicle.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Develop an awareness of environmental sounds--how they affect driving patterns.	O. U. Health Science Center Northeast 13 and Phillips Oklahoma City, OK 73105
Work with various types of surfaces, textures and mechanical devices to acquaint them with how the motor vehicle performs in various situations.	
Students will experiment on a controlled basis on various types of situations such as fuel spills, electrical fires, drive train component leaks, populations and how they affect transportation.	Local Fire Department Local Police Department Santa Fe Railroad Ten Northeast 36 Street Oklahoma City, OK 73105

2.6.2 PERFORMANCE OBJECTIVE: The student will be able to

CONTENT OUTLINE	INSTRUCTION PERFORMANCE
Principles of Perception: Attention span Perception time Selection process Past experiences Clues	Work with the students on skill development, also relationship to past experiences they can utilize in driving.

list principles of perception.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Work with flash cards and other materials to develop recognition skills - response time.	Thompson Book and Supply Co. P.O. Box 71 Edmond, OK 73034
Work with traffic sign for symbols, legends etc.	
Develop collages depicting environmental scenes (for traffic situations).	
Work with the micro-computer to develop skills in identifying response time--spatial perception.	Apple Computer Systems 1611 NW 23rd, Okla. City, OK 73106 Radio Shack Computer Systems 4903 North May, Oklahoma City, OK 73112

2.6.3 PERFORMANCE OBJECTIVE: The student will be able to

CONTENT OUTLINE	INSTRUCTION PERFORMANCE
Prediction Process 1) Define process 2) Establish criteria: Traffic laws and controls Natural forces Human characteristics Capabilities of vehicle Roadway conditions Traffic conditions	Work with students on developing practical skills in the prediction of possible traffic situations. Participate in classroom discussion.
Predictions for Motor Vehicle Operators: Distance and spatial relations Lateral distance Position of vehicle Distance front - rear Spatial relations--maneuvering Turning radii	Demonstrate safe control in driving situations or the environment which relates time, space, distance, and driving maneuvers. Practice assessment of hazards and skills in relationship to space, time, distance.
Speed and time intervals: Vehicle speed	Describe what they would do in various types of driving situations.

apply the IPDE process.

LEARNING ACTIVITIES	RESOURCE MATERIALS
View films which depict the prediction process.	I.P.D.E. Doran Corporation Simulation Films: Aetna Life & Casualty Driver Education 2550 North Loop West Houston, TX 77092
View slides and films of traffic situations.	Oklahoma Department of Public Safety 3600 North Eastern Oklahoma City, OK 73121 Oklahoma Motors Carriers Association P. O. Box 14607 Oklahoma City, OK 73113

CONTENT OUTLINE	INSTRUCTION PERFORMANCE
Speed--other vehicle Speed--maneuvers Stopping distances	Demonstrate in-the-car awareness of how to respond to different situations.
Time, space, distance and judgment--maneuvers Passing Intersecting Meeting Stopping Blending	
Behavior of Road Users Human limitations and capabilities Alternatives of roadway users Conditions of vehicles Effect of traffic control Interaction of users Action--given conditions Hazards and risks	Demonstrate to students various behaviors for given tasks and situations.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Use traffic scenes, they select key elements, evaluate each hazard and predict what others might do.	Emergency Medical Technologists NE 10th & Stonewall Oklahoma City, OK 73152
Diagram driving situations which may trap a motorists into an emergency.	Oklahoma Highway Patrol 3600 North Eastern Oklahoma City, OK 73121

CONTENT OUTLINE	INSTRUCTION PERFORMANCE
Decision - making progress Definition Process Decision - making Simple Habitual Complex Sudden Application to trip	Work with the students on decision-making skills as it relates to driving Demonstrate safe and legal decisions in traffic situations.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Work with problem situations, identify possible solutions and rank them.	Toward affective Development Science Resource Associates
Work with traffic situations decise plan of action.	Oklahoma Department of Tourism and Recreation 500 Will Rogers Bldg. Oklahoma City, Ok 73105
Plan trip to two different areas in your town. State why you traveled the particular way.	State of Oklahoma Department of Transportation, 200 NE 21st Oklahoma City, Ok 73105
Work on emergency situations and what you would do.	Oklahoma Department of Public Safety 3600 N. Eastern, Oklahoma City, Ok 73121

CONTENT OUTLINE	INSTRUCTION PERFORMANCE
Execution Definition Responses Acceleration Steering Brakes Signals Habits Reflex on impluse	Work with the students on skill development and responses as they relate to driving and changing traffic situations.

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LEARNING ACTIVITIES	RESOURCE MATERIALS
View slides of traffic situations flashed in front of you - respond and discuss.	Radio Shack Computer Systems 4903 North May Oklahoma City, Ok
In traffic lessons, work on execution responses.	Apple Computer Systems 1611 NW 23rd Oklahoma CIty, Ok
Use of simulation on response situations.	Department of Education Driver Education Section 2500 North Lincoln Blvd. Oklahoma CIty, Ok 73105

2.7 TRANSPORTATION SYSTEMS

OVERVIEW:

The student will become familiar with the components and function of the highway transportation system.

OBJECTIVES:

2.7.1 The students will be able to describe the components of the highway transportation system; the purpose of the highway transportation system, forces which will affect and manage the highway transporting system; and the criteria for evaluating the highway transportation system.

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
1. Systems A. Definition of Systems B. Kinds and Purposes of Systems C. Evaluation of Systems 2. Highway Transportation System A. Components B. Goals and Purposes C. Management D. Evaluation 3. The Nature of the Driving Task A. Basic Control Task B. Traffic Flow Task C. Critical System Task	2.5.1 Make sure students understand the difference between the terms systems and sub-systems. Make sure students understand that the system is made up of vehicles, highways and people.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Students will make charts of the various parts of the Highway Transportation System. Students will make a chart of the components of the system, and break it down into its major parts. They will state the purpose of the system. Students will develop a flow chart and design the organization of the Highway Transportation System.	Sportsmanlike Driving Eighth Edition A.A.A Foundation for Traffic Safety, Falls Church, VA American Driver and Traffic Safety Education Association Washington D.C. Washington Traffic Safety Education Guide - Old Capitol Building, Olympia Washington 98504

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
	Will make the students aware that people are contributors to the break-down of the Highway Transportation System because they are the decision makers in the system. Encourage students to strive for excellence in driving.

LEARNING ACTIVITIES	RESOURCE MATERIALS
They will show its major components and their interactions with each other. Students will identify vehicle characteristics and owner maintenance habits which could cause system failures.	
Students will discuss roadway characteristics and other environmental factors that could cause systems failure.	
Students will identify and make a chart listing conditions, actions, or situations which contribute to the breakdown of the Highway Transportation System.	
Students will work on developing skills and attitudes that apply to driving which is an important complex activity.	
Students will explain in their own words what they think is involved in the driving task.	
Students will identify and make charts dealing with causes and effects of inertia-frictions as they are related to operating a motor vehicle.	
Students will identify various types of vehicles--off-road vehicle, trucks, commercial vehicles.	

CONTENT OUTLINE	INSTRUCTOR PERFORMANCES
	Make students aware of visual lead time, judging time--space gap for passing, gaps at intersections, right and left-hand turns, lateral maneuvers, changing lanes, entering and leaving expressways and other traffic flow tasks.
	Make students aware of time space management as a major part of safe driving.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Students will develop adequate following distance and monitor traffic conditions. Students will implement the 2-second or 4-second following distance and adjust for unexpected movements by other vehicles. Students will develop a chart listing hazards, obstacles and situations which may develop into a major cause of accidents. Students will become aware of the need to check for potential obstacles or hazardous situations. Students will practice various driving maneuvers on off road areas, driving ranges and in actual in-car driving situations.	

2.8 PROGRAM EVALUATION

Evaluation is an ongoing process to determine if specific goals have been accomplished. Effective evaluation of the Driver Education students and of the program should be both quantitative and qualitative in nature. Objective instruments which measure content knowledge, driver attitude, and driving skills are vital. Additionally, teacher observation, check lists and rating skills can be used for program improvement.

Testing is an integral part of any Driver Education program. Though many tests are available, the instructor will determine if locally or nationally normed instruments are to be used. Criterion Reference tests may determine whether the student has no mastery, partial mastery or mastery of particular skills. As students enter the program, tests should be administered to diagnose each student's own unique individual needs. These tests should be the basis for developing criterion on students' needs and objectives. Tests should be based on the affective, cognitive and psychomotor needs of the students. If one area is neglected, the students will not be able to develop the necessary skills to become a well-balanced driver.

The instructor must strive to insure that the students aren't compared with each other. They must only be compared with the program objectives and their own individual needs. Each skill that the student lacks must be discovered and appropriate activities prescribed to develop that skill. The rate of progress is determined by how quickly the student masters each skill level. All students must pace themselves to insure that they don't miss particular achievements. The instructor must be sure that the student's achievements and accomplishments are constantly evaluated and demand that each skill is accomplished on a high level. Observation is also an important tool which is sometimes neglected. If the students are trained in proper observation techniques, they will be able to perceive what other students are doing, how they react to many different situations, and what methods are need for improvement in driving and the development of attitude skills.

As the student is progressing through the program, they must be made aware of their progress to help them ascertain whether they are accomplishing specific goals, skills and objectives. They should be evaluated and

informed on a regular basis as to their accomplishments. At the completion of the program, each student must be evaluated on total achievement to determine if they have perfected the necessary skills. This measurement should be based on criteria to assess specific behavioral objectives of the program. The final exam should be a process of measuring whether the students have accomplished the necessary skill to each domain: Affective, Psychomotor and Cognitive.

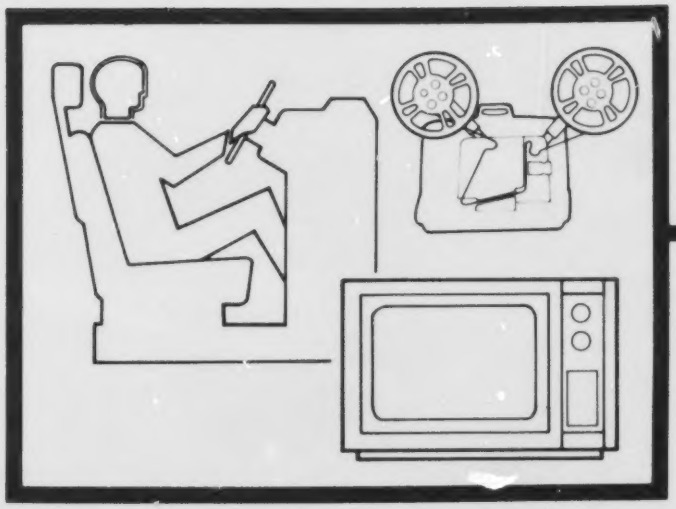
An additional consideration is what to do if some students do not reach an established level of achievement. No student should fail, but the students must be evaluated as to what skills they need to develop to work toward achievement of the objectives. This will entail working with the students and parents to develop necessary skills. In some cases this may mean that the student will spend more than one semester in the Driver Education program. It is imparative that the students master these skills before they become a part of the motoring public.

The criteria for course completion should be revised from time to time. The Driver Education instructor should first develop goals for the program. Next he will develop objectives for every phase of the program based on the needs of the students. Finally he will implement quality learning activities for students. As each activity is completed, it should be evaluated to see if it actually accomplished the desired goals.

Program research should include community attitude polls to determine local perceptions of the existing program and to guide future course development. In many communities parents and civic leaders are totally excluded from the program. They haven't been asked what they perceive the basic needs of a quality Driver Education program to be. They often can offer valuable insight to the needs of students. As we go into the last part of the 20th century, there will be many changes which will need to be addressed in regards to Driver Education and Traffic Safety. The more people who provide insight into the needs, the more the instructor will be able to improve the program.

Another important aspect of program evaluation is to adequately use state and local traffic records to monitor the performance of former students. Using this, the instructor will be able to assess the long-term performance of students. Are we just training students to get their license at age 16; or are we preparing them to be a responsible part of the driving public?

Instructional Media



UNIT OVERVIEW

The ever-changing world we live in, energy shortages, and the increasing importance of the automobile make driver education one of the most important classes a child can receive. The development of today's youth into energy conscious, reliable, safety-minded adults is our main responsibility. With the use of Multimedia this all important task can be made simpler for todays teacher.

Educational television is available to every school in the state of Oklahoma. These programs are well written and guides are available for all teachers to help get the maximum educational benefits from all programming. Group discussions are an integral part of the driver education program and this type of programming helps lead the student in the right direction and helps lead the student in the right direction and helps give purpose to the driver education system.

Our responsibility to the parents and the community we live in are important too. Parents need to be informed about every phase of the classroom work being done so that they can be involved with the student also and strive to create a learning environment at home as well as at school. The citizens of the community will be safer and more conscious of the driver education classes that involve them in day to day safety. The driver education class will help to reinforce community interest in the laws and safety regulations of their homes.

Simulation and range are two tools that help us demonstrate maneuvers that are not always possible on the in-car portion of the program. Simulation shows, through films, the practical way to do each maneuver, and the range is there to demonstrate each maneuver. With a teacher who is really involved with his program, this type of learning is limitless in its value.

We as educators must feel that each student is "NUMBER ONE". Each must be shown, through our enthusiasm that they can and will succeed. We have the responsibility to build character, self-confidence, citizenship, and above all safe attitudes for the youth of today.

3.0

Instructional Media

OVERVIEW:

Many movies and film strips are available for loan, rental, or purchase basis. Success in the use of audio-visual aids requires careful planning. Only a reasonable number of films can be shown during regular class time without seriously neglecting other class activities.

Criteria:

1. Material should be suitable in terms of the student maturity level, needs, and interest.

2. Materials should motivate student activities that involve learning by doing.

3. Materials should be made available to the students to motivate interest in every aspect of safety and driver education.

4. Materials should appeal to students through appropriate use in color, design, and pertinent illustrations.

5. Motion pictures should be current and of interest to the aspect of driver education being taught.

6. Student participation in bulletin board, felt board, etc. will increase interest and student motivation will add to the emotional attitude of the classroom.

Methods:

1. Include charts (statistics, car crashes, dates that students receive permits, then licenses), large diagrams (problem intersections, proper parallel park, angle park, correct entering and exiting of the car), posters (good to use pictures from insurance companies that explain different types of insurance, posters that show different makes and models of current cars), local and state highway maps (the students can make and plan trips later in the year, but with these on

the walls, they will get an early interest in counties and recreation areas outside of their home territory), local maps (show problem areas where most wrecks occur, trouble spots on the highways that need to be repaired, signs that have been damaged, bridges that need repair), schedule of in-car instruction, student-made exhibits (felt boards, car collections, mock-ups of car designs).

2. Several types of traffic boards and separate working models are available. Cut-away or salvaged parts of autos may be used effectively. Students may contribute car collections and puppets. Student's motivation is very important. Research and art design can be very instrumental in learning. (Example: parts of the auto, safety rules, types of autos, intersection design.)

3. Film Strips - Films
Film strips and films are available from the State Department of Education, Media Resource Center, 2500 North Lincoln Boulevard, Oliver Hodge Building, Oklahoma City, Oklahoma 73105. These films are in subject matter order and give an overview of each film.

County Film Libraries - Contact the County Superintendent's Office in the county of your school district.

4. Psychophysical Tests
These tests are used chiefly for stimulating interest in the mental and physical requirements of safe and skillful driving. Students may learn certain limitations and how to correct or compensate for them. The most desirable tests used are field of vision, depth perception, reaction time, visual acuity, glare resistance, and glare recovery.

A. The instructor should administer psychophysical tests by:
   1. Giving brief but thorough instruction
   2. Demonstrating the test and allow the students several trial practices
   3. Keeping everything uniform for all students tested.

B. Reaction Tests
   1. Simple reaction
   2. Complex reaction

C. Other Tests
   1. Audiometer
   2. Steadiness
   3. Muscular coordination
   4. Detonators - reaction testing

D. Eye exams
   1. Glare recovery
   2. Visual Acuity testing
   3. Depth perception
   4. Field of vision
   5. Glare resistance

E. Suppliers

Charts	Aetna Casualty and Surety Comp. 151 Farmington Ave. Hartford, Conn 06115	National Commission on Safety Education National Education Association. 1201 16th St. NW Washington, DC
Large Diagrams	American Automobile Association 1712 G. Street. NW Washington, DC	Champion Spark Plugs Dayton 1, Ohio
Posters	American Insurance Association 110 William St. New York, NY 10038	Goodyear Tire and Rubber Company Akron, Ohio 44316
Local and State Maps	Oklahoma Tourism 2400 N. Lincoln Oklahoma City, Okla 73105	Any local driver examiner or highway patrol station
Local Spot Maps	Teacher-made after observations of students	Local Street Department
Traffic Boards and mock-ups	Bumpa-Tel P.O. Drawer A Cape Girardeau, Mo. 63701	Ford Motor Company Department of Educational Affairs. The American Road Dearborn, Mich
Film Film-Strips	State Department of Education, Driver and Safety Education 2500 N. Lincoln Blvd. Oliver Hodge Building Oklahoma City, Ok 73105	Oklahoma American Automobile Association 3525 NW 23rd. Oklahoma City, Ok 73107

Psychophysical Tests	Department of Public Safety District Patrol Headquarters	State Department of Public Safety 3600 N. Eastern Oklahoma City, OK 73111

3.1 Educational TV

The Oklahoma Educational Television Authority is received all over the state of Oklahoma. The major stations are 11 in Tulsa, 12 in Cheyenne, 13 in Oklahoma City, and 3 in Eufaula. Numerous other transmitters are located throughout the state.

The State Department of Education, Media Resource Center, 2500 North Lincoln Boulevard, Oklahoma City, Oklahoma 73105, has the complete television schedule. They also have teacher guides available free on request for each program scheduled, These guides list teaching methods, activities, grade levels, K-12, length, and taping rights.

The taping rights will allow the teacher to record the program on a VHF recorder, and show to the class when needed. These recorders are not available from the state department. They are supplied by the local school district. Any additional questions can be answered by the State Media Department (405) 521-3103.

A special newspaper listing times and programming is available by writing Oklahoma Educational Television Authority, 7403 North Kelley, Box 14190, Oklahoma City, Oklahoma 73113.

3.2 Resource Personnel

Resource Personnel are a very big part of any successful Driver Education Program. We as educators must realize that the field of Driver Education is a very complex one. To enhance our programs, whether it be to provide professional advice and guidance or to just add stimulating discussion groups to a classroom, the use of outside speakers and demonstrations are unlimited in the store of knowledge our students can receive. Most speakers will come on a free-of-charge basis at the request of the instructor.

Listed below are several types of programs available:

1. Auto Mechanics - Contact a local garage or car dealer in your area. Also Vo-Tech schools are a good resource. Most mechanics can describe in detail how to change the oil, check belts, fluids in car, check the brakes, detailed instruction on minor car problems such as things to look for if the car won't start. Also tips for better gas mileage.

2. Insurance Agents - Most insurance companies have local agents who will come to the school and discuss the types of car insurance available, answer questions about premiums, and stress the importance of good driver records in regard to insurance costs.

3. Medical Doctors - Children seem to listen to the advice of a doctor on the use of alcohol and drugs when driving. The doctor can show also the different forms of illnesses (i.e., epilepsy, heart disease) that can make driving a special risk.

4. Judge - If possible, take the class to a court trial during the time a DUI case is being tried. Let them see the results of drinking and driving. The judge can also explain the laws of Oklahoma and why they are enforced in the ways they are.

5. Department of Public Safety and Oklahoma Patrol - Most DPS divisions have an educational officer who can give lectures on a wide range of subjects. They will also come to the schools to give psychophysical testing, and also learner permit tests. You should contact your local division of the DPS or Highway Patrol for the officer in your area.

6. Eye and Ear Specialist - An eye and ear specialist can give psychophysical tests. They also can give details on the type of eye problems (glare recovery, depth perception) that most affect drivers.

7. Ambulance Driver and Technician - The best method of instruction in speed control and DUI and DWI seems to be actual pictures. These attendants can usually describe the types of people involved in wrecks and often have slide presentations to demonstrate. They are also very helpful in demonstrations on first aid and CPR procedures.

3.3

Parent Participation and Public Relations

Invite parents to participate in an orientation program, possibly during an open house or specially scheduled meeting. Parents who are made aware of the goals and objectives of the total driver education program are generally more supportive of the program. It is important to be sure the program is well planned. The community must see a quality program in action if it is expected to support your program. A well developed parent-participation program can:

1. Inform parents of the methods used by driver education teachers to educate their children
2. Instruct parents in their role and responsibility during and after the driver education course
3. Stress the parents role and responsibilities after students are licensed.

Include in a meeting

1. Use of simulator - give demonstrations to parents
2. Use of educational TV
3. Multimedia - show types of films, etc.
4. Explain the purpose and objectives of the driver education program (why are goals in driver education important?)
5. Explain the parents role in both the meeting and the total program
6. Encourage parent participation. Give them definite assignments to complete at home with child
7. Display and explain the Bureau of Motor Vehicle licensing forms and procedures
8. Introduce all Driver Education Instructors.

Parent-participation programs, well organized and carefully conducted, can benefit your total driver education program. Parents can suggest speakers for classroom instruction, support your program in the community and aid their child in the total learning process.

If you expect community support you will have to sell your program. If you don't protect and have confidence in "your" program no one else will either.

Keeping parents informed of student progress is important also. Form letters sent at the beginning, midpoint, and at the conclusion of class are confidence builders for the parents as well as the student. Be totally honest in your evaluation. The child must recognize his mistakes before he can correct them.

LETTER TO PARENT OR GUARDIAN AT BEGINNING OF DRIVER AND TRAFFIC SAFETY EDUCATION COURSE

Dear _____:

We are pleased to have your son/daughter enrolled in the driver training course. This course consists of _____periods of actual practice driving behind the wheel and_____periods of observation in the car.

The car used for practice driving is insured and is equipped with dual controls and seat belts in order to provide maximum safety.

It is our desire to help students to be safe motorists and intelligent pedestrians. In the limited time at our disposal, we will be able to introduce your son/daughter to the basic knowledge and techniques necessary to operate a motor vehicle safely and skillfully.

We will inform you of progress made during the semester. Please do not hesitate to contact us if you have a question.

Sincerely yours,

_____
Principal

_____
Instructor

LETTER TO PARENT OR GUARDIAN AT CONCLUSION OF DRIVER TRAINING COURSE

Dear_____:

Your son/daughter has satisfactorily completed the driver training course.

In this course he/she has done behind-the-wheel driving for_____school periods and as a passenger has observed the driving of other students for _____periods. He/she now has the knowledge and skills that basic to handling a motor vehicle. However, he/she is still in need of practice in driving before he/she will be an efficient driver. This practice can best be provided by you. And in providing the practice, you should have him/her drive your car under your supervision. This supervision should include giving special attention to each of the following phases of driving that are checked below:

( ) Practice steering in a straight line

( ) Hand-over-hand steering

( ) Shifting gears

( ) Backing the car

( ) Right and left turns

( ) Turning car around in width of street (turnabouts)

( ) Angle Parking

( ) Starting on an upgrade

( ) Parking, upgrade and downgrade

( ) Overtaking and passing on highway

( ) Heavy traffic driving

( ) Parallel parking

( ) Driving at night

( ) Driving under unfavorable conditions

Obviously, in the limited practice driving, your son/daughter has not had the variety of opportunities he/she needs to be capable of using good judgment in all traffic conditions. You can be of great help to him/her in his/her learning to make such judgments if, while riding with your son/daughter, you will point out traffic situations that may lead to trouble unless proper defensive driving techniques are used.

We will appreciate your help in making your son/daughter a safe and efficient driver.

Sincerely,

_____

Principal

_____

Teacher

Letter to Parents

The High School Driver Education course helps youth to live safely in a world where the automobile is an essential part of everyday living. In the few hours an instructor has to give practice driving, he cannot expect to turn out a finished driver. The student requires many additional hours of supervised practice before he can develop those skills, judgments, and attitudes which are essential to safe and skillful driving.

With the cooperation of parents, this much-needed additional practice can be provided. Attached are suggestions for three letters to be sent by the instructor to the parents. These letters are designed to interest parents in the program and to encourage them to give their sons and daughters additional supervised practice. These letters should, of course, be written on school letterhead and signed by the principal and the instructor. The letters are only suggestions. No doubt you may wish to modify them to better fit your local conditions.

1. First letter to Parents
(School Letterhead)

Date_____

Dear Parents:

_____has enrolled in the Driver Education Course in our high school. The course consists of _____hours of classroom instruction designed to develop the skills, understandings, and attitudes basic to safe and efficient driving, with special emphasis on defensive driving techniques; and_____hours of actual driving instruction. The car is also covered by liability insurance. Tests for a restricted operator's license will be given to each student early in the course.

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Because of the limited time available for supervised practice during the course of instruction, we are able to give the students only the basic fundamentals of sound driving practices. We shall appreciate your cooperation in providing additional practice driving for the student. Other letters will be sent to you with information as to what movements the student should practice. It is advisable to keep such practice within the limits of the student's driving instruction and experience. We hope that you will be able to provide as much opportunity for practice driving as is necessary to prepare the student adequately before he attempts to face today's complex traffic conditions alone.

It will be the student's responsibility to obtain, when qualified, a regular operator's license, since the examiner will not be able to come to the school again for road tests.

Yours truly,

_____
Principal

_____
Instructor

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B. Sample Letter Form

1. An introductory letter or hand-out is helpful in explaining the procedure for obtaining temporary instruction permits, for instance, and initial request for parental help, or a form for parental consent for the student to take driver education.

The following is an example of such a letter:

Dear Parent:

This is to confirm that_____has enrolled in the Driver and Safety Education program. During this instruction, the fundamentals of safe driving will be taught by certified (high school) instructors.

Lesson guides and other materials will be distributed during and after each classroom or driving session to reinforce learning and provide for student review. Please assist by encouraging your child to review previous materials stressing correct driving practices. After your child has had time to develop some rudimentary skills, please take your youngster to a parking lot or a lightly traveled residential area to practice the basic maneuvers.

Below is a parental consent form that is required by state law giving your permission for your child to take the in-the-car instruction phase of the program. Please fill it out and return to the instructor.

DETACH AND RETURN

Dear Sir:

This is to verify that _____ has my permission to enroll in the Driver and Traffic Safety Education course at (Name of School) _____.

Student Name _____
Last First M.I.

Street Address _____

_____
City State Zip

Date of Birth _____ Temporary Number _____

Expiration Date _____

Social Security No. _____

Assigned Driving Time _____

Home Phone number _____

Date in the Car Consent _____

Homeroom Number _____ High School Grade _____

Parent's Names _____

Name of Doctor _____

Doctor's Phone _____

SCHOOL LETTERHEAD

Dear Mr. & Mrs. Doe:

We are pleased to inform you that your son (daughter) has enrolled in our high school driver education course. This course consists of at least____periods of classroom instruction, _____hours of actual practice driving, and _____hours of observation activities in the driver education car. The practice driving car, on loan from the John L. Smith Company, has been equipped with approved dual-controls and is under the direct supervision of a fully qualified teacher at all times.

All students must have an instruction permit before participation in practice driving is legally possible. Students 15 years of age will be restricted by law to practice in the driver education car only. Students 16 years of age or older are entitled by law to practice driving in any motor vehicle so long as they are accompanied by a licensed driver who has had at least one year of driving experience and who is occupying the seat beside the driver.

Parents are urged to see that the person accompanying the student, 16 or older, is of sufficient maturity and experience to be a safe advisor for the student. It is suggested that the older student's practice driving should

never go beyond the limits of practice already given by his (her) instructor in the school car. This will help reduce any possibility of accidents, as well as spare you much mental and nervous strain.

It is our desire to aid all students to live safely as a driver and pedestrian in this motorized age. By working together we should hope to develop a beginning driver of excellent habits and proper attitudes.

If you wish your son (daughter) to take this course, please read and sign the enclosed form granting your approval. This signed form must be returned to the _____ High School before any practice driving may be taken.

Please feel free to call on either of us for further information or assistance.

Sincerely yours,

_____
Principal

_____
Instructor

3.4

Simulation

Simulator units are electro-mechanical devices programmed with an orderly sequence of material to teach appropriate responses. The simulator phase combines activities involving knowledge of related information, perception, judgments, decisions and reaction motor skills.

Students follow the simulation program to develop positive driving techniques. Individual and group errors can be corrected by special drills through the use of related local traffic teaching aids and by rerunning the film presentations.

Simulation is used to show a wide variety of traffic situations not easily provided by in-car instruction.

A. Traffic conflicts
B. Urban traffic
C. Expressways
D. Emergencies
E. Defensive driving
F. Residential and industrial areas
G. Highways and country roads
H. Adverse weather
I. Basic skills - hill parking, turnabouts, etc.

The simulation program is designed to acquaint the student with standardized driving procedures and basic search patterns. If followed, this experience would keep the driver alert to alterations in traffic situations and would provide experience upon which to base adequate response.

The use of films in simulation allows the students to begin with simple tasks and progress to more complex driving sequences.

Simulators are not designed to replace the instructor, but to furnish him with a valuable tool. The effectiveness of the use of simulation depends upon preparation of the student for the film's relevant comments during the film, and discussions of key situations.

In addition to viewing the films, students are also reacting physically by "driving" their simulated car. Their actions can be recorded either automatically or

manually through a device located in the rear of the classroom. Some teachers prefer to move about in the classroom or trailer so they can directly observe and correct student behavior.

The purpose of the simulator is to:

1. Provide explanations and experiences that will reinforce and expand on those provided in other phases of the Driver Education program
2. Provide learning opportunities in a non-threatening environment
3. Develop basic visual habits
4. Provide more driving experience per hour of supervision
5. Develop the understanding judgment, and skill necessary to execute basic driving maneuvers safely within typical traffic situation.

Instructing with the driving simulator. The following are suggestions for developing a presentation:

1. Know the film. It is suggested the teacher drive through the film to become familiar with the content
2. Know the equipment, be familiar with the teachers console, the scoring system projectors and preventive maintenance procedures
3. Introduce students to the simulators. Tell the correct use of the model and the procedures to use it
4. Introduce each film with a discussion of its contents. If discussion is appropriate stop only at the end of major sequencies
5. Use a flashlight pointer to identify key situations
6. Make verbal comments. Be certain not to distract students by over talking
7. Move about the room to identify students with problems
8. Use commentary driving. Ask students to give their thoughts orally as they drive through the film

RANGE

3.5 An off-street, multiple-car driving range is an area (preferably paved) where several cars are used simultannously for laboratory experiences under the supervision of one or more instructors. A driving range is merely any open space large enough to permit a car to do a number of maneuvers. When not used for driver education these areas may be used for other purposes such as parking lots. Most driving ranges are built to accommodate six to 12 cars. The exact number depends on the size of the range. Experienced teachers feel that six cars is the maximum number one teacher can safely control. It is suggested a wide variety of cars be used.

It is necessary to have an audible means of communication between the instructor and each student driver. The most commonly used communication system is the radio system which consists of an FM transmitter for the instructor and AM or FM receiver for each vehicle. Portable public address systems and loud speakers can also be used.

In the range program the unskilled driver learns to accept individual responsibility, to reflect positive attitudes, and to improve basic skill techniques. It is a very valuable tool in the practical use of the automobile.

Contents

The driving range includes a number of painted traffic patterns which are used to simulate traffic situations or conditions. Recommended dimensions for range construction are approximately 360 x 460 feet. The larger the area, the more size and design and elaborate planning the range may have. Regardless of the size, three factors should always be taken into account.

1. The facility should afford visual contact from any one point to all other points
2. It should be compact enough to enable effective use of a radio communication system
3. It should be designed so that student needs will be adequately fulfilled.

The range might include a garage, parking facilities, a hill, curves, a dead-end street, multiple-lane traffic, intersections, a one-way street, a railroad crossing, "T" or "X" exercises, entrance or exit for freeway, two and four lane streets, and angle and parallel parking. Traffic sings, signals, traffic cones, and stanchions should be available for use. Smaller ranges can include only a few of these facilities. School parking lots can be utilized using rubber tires or cones to set up simple driving patterns. Check local facilities such as parks, cemeteries, or church parking lots for simple turns or lane usage. For simple equipment, make your own using empty trash cans or make cones out of clorex bottles by putting broom sticks in the tip and cementing them in.

Through a multiple-car program, the student experiences:

1. An orientation to the car
2. Starting, shifting, steering and stopping procedures
3. Forward and backward movement of the vehicle
4. Right and left turns
5. Driving around curves
6. Meeting traffic
7. Passing and being passed
8. Lane changing
9. Stopping and starting on a hill
10. Parking-angle, parallel, garage, and hill parking
11. Changing a tire.

Methods and techniques

Following the orientation to the car, the cars are aligned side by side at least 15 feet apart. After a briefing of the activity plan for the day, each student goes to his assigned vehicle and waits for further instruction. When the students have been given their keys, the teacher directs the students to enter their cars and execute preparations such as adjusting seats and mirrors, locking doors, fastening seat belts and shoulder harness, check window for ventilation, and checking the parking brakes. When preliminary steps have been completed, the teacher "talks through" the steps for starting the engine as the students execute them. The students then repeat this phase of the activity a few times on their own.

Now the students are ready to learn to drive the car forward and backward and stop smoothly. The teacher guides one student at a time through the steps of moving the car forward and stopping. After each student has driven his car forward about 50 to 75 feet (depending on space available) so that all cars are again in line, the teacher directs the students to move forward all at the same time. After this, the same procedure is followed for backing, one student at a time in the first attempt and all together on the second attempt. Next, the students are directed to repeat the forward and backward procedures on their own. During this phase of instruction, the teacher is observing the drivers closely in order to identify those having difficulty and those progressing satisfactorily. Students needing additional practice in driving forward and backward remain where they are. The others are directed to drive around the outer perimeter of the range in a counter-clockwise direction at a slow speed, with an interval of at least three to five car lengths between cars. The teacher stations himself near the most difficult turn so that he will be near potentially dangerous situations. When the students who remained at the "forward and backward" practice area are ready, they join the circular traffic pattern. After this practice, the pattern of traffic is reversed to a clockwise direction. Usually by the end of the period all cars are in this pattern.

After the first activity, at least one new maneuver is introduced each period. As students master the basic traffic situations, they progress to more complex tasks and maneuvers requiring higher degrees of proficiency. During these experiences, the student is developing a sense of responsibility and self-confidence.

As a general rule, the teacher should be positioned on the driving area so that he can move quickly to any place where he might be needed.

Sequence of experience for range instruction

First Activity

1. Pre-ignition procedure
2. Starting procedure
3. Stopping procedure
4. Steering procedure
5. Moving the vehicle forward and backward

6. Driving around the area in a counter-clockwise direction (left-turn practice).

Second Activity

1. Review procedures from first activity
2. Driving around the area in a clockwise direction (right turn)
3. Lane changing
4. "T" exercise.

Third Activity

1. Review procedures from second activity
2. The "Figure 8" exercise (using traffic cones)
3. The "X" exercise
4. Stopping and starting on a hill.

Fourth Activity

1. Traffic Signal
2. The "Double Garage" exercise
3. Individual work with students needing additional assistance.

Fifth Activity

1. Parking on an upgrade with a curb
2. Parking on a downgrade with a curb
3. Individual work with students needing additional assistance.

Sixth Activity

1. Angle parking
2. Individual work with students needing help.

Seventh Activity

1. "Y" turn exercise
2. Individual work.

Eighth Activity

1. Parallel parking
2. Individual parking

Ninth Activity

1. Overtaking and passing
2. Exit and entrance to freeway
3. Individual work
4. Evaluation of student's progress.

Tenth Activity

1. Review all exercises
2. Individual work
3. Evaluation of student's progress

For effective teaching, you may want to use the following suggestions:

1. Clarify what you want to teach first
2. Be prepared, know your subject, believe in what you teach
3. Emphasize the positive aspects of driver education
4. Encourage group discussion and questions
5. Limit the ideas presented each period
6. Use stories or examples that are within the experiences of students to support general statements
7. Coordinate the classroom lessons with the in-car phase of instruction.

RANGE MAKE-UP AND EQUIPMENT

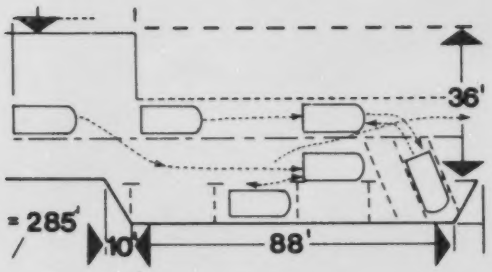
Range Make-up

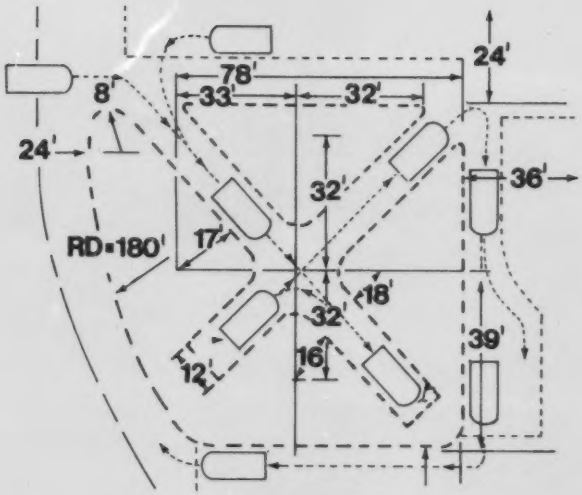
Oval or Various Turning Ratio	SPECIFICATIONS
Intersections	Major Lanes - 15' Minor Lanes - 12'
Figure Eight	4-Way 3-Way
Angle Parking	Inside Radius - 20'
Double Garage	Outside Radius - 32'
Y Turn Area	10'x 20' (at least 3 spaces)
X or T Exercise	20'x20'
Parallel Parking	30'x60'
Various Road Surfaces	15' Lanes
Hill	6½'x25' (both sides of street)
Railroad	Stone-Slag-Sand-Brick-Grass
One-Way Street (right and left)	Curb-no-Curb
Freeway Ramp	
Various Lines for Lane Control	Appropriate Signs 100' Long Solid White Solid Yellow Broken White
Various Control Devices	Stop Sign-Yield Sign-Lane Control Sign
Curbing	As Needed on Hill and Parking Areas

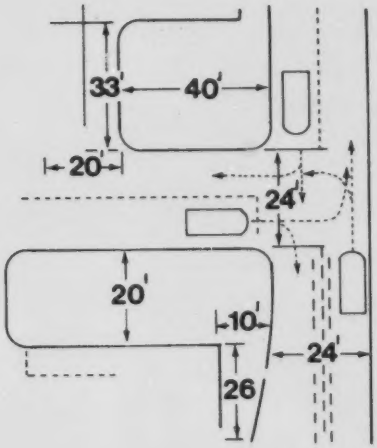
Range Equipment

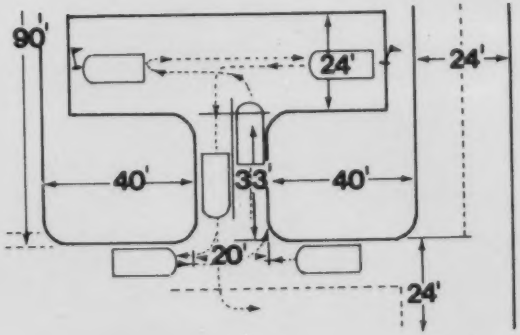
Six to Ten Vehicles	Signs
Central Storage for Keys	Stop
Traffic Signals	Yield Right of Way
Communication Devices	One-Way
Stanchions	Right Turn Only
Numbered Signs for Cars	Left Turn Only
Barricades	Curve
Traffic Cones	Slow
Traffic Flags	Speed Limit (15 MPH)
Lane Markings	Hill
Button Markers	No Passing Zone
Curbs	Crosswalk
	Railroad (warning and crossbuck)

SAMPLE RANGE LAYOUTS

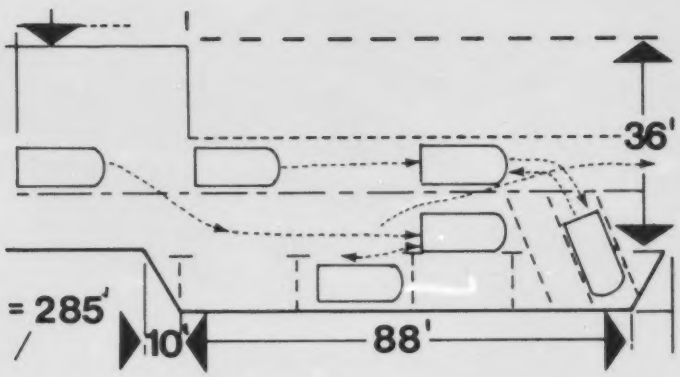


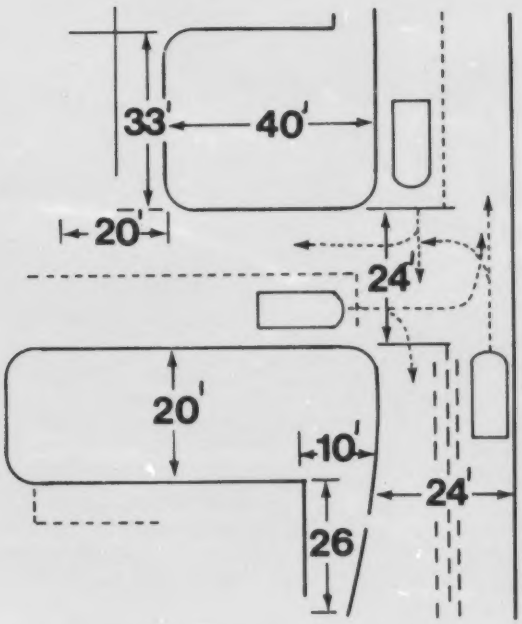






SAMPLE RANGE LAYOUTS





RECOMMENDED PROCEDURE TO FOLLOW

IN CASE OF RANGE ACCIDENT

I. Obtain the following information about people in the car.

A. Name-pilot
Address
Phone
Age
Name-Co-pilot
Address
Phone
Age

B. Car number

C. Instructor

II. Notify the school nurse and follow recommended school accident procedure.

III. Notify the principal's office and controlling administrative offices.

JV. Notify main office.

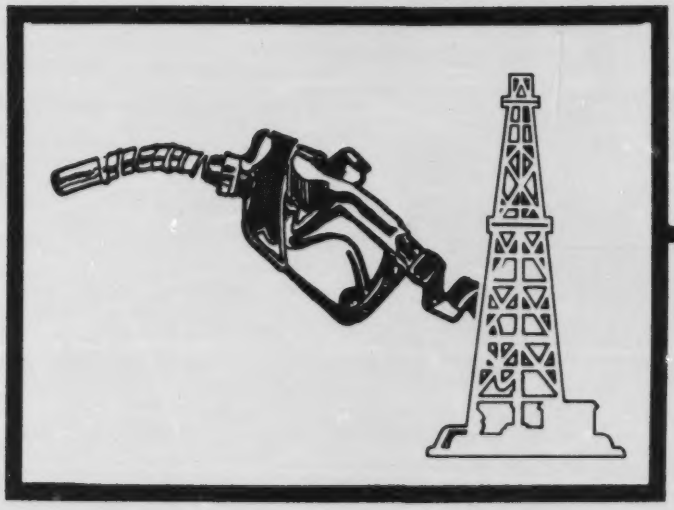
V. Call the insurance company and give complete information on the accident.

VI. Notify your local dealer.

VII. Get body estimate and take to insurance company.

VIII. Comment-record related data.

Energy Conservation



UNIT 4

ENERGY

OVERVIEW:

The energy situation that now faces the United States is the result of two basic problems: increasing petroleum consumption and declining domestic crude oil production.

Solving problems is a joint effort among -

1. Oil Companies - in searching for new fuels
2. Automobile Companies - in search of more fuel efficient vehicles
3. Federal Government - in appropriate regulation and providing funds for research
4. Individual - in maintaining and using the vehicle wisely.

PERFORMANCE OBJECTIVES:

4.01 Students will receive an overview and have a general knowledge of the history of energy.

4.02 Students will have a knowledge of the types of energy used in automobile research.

4.03 Students will understand the importance of conserving energy.

4.10 Students will be able to identify the proper vehicle for the needed task.

4.11 Students will understand the effect that optional equipment has on gas mileage.

4.20 Students will know that good vehicle maintenance improves fuel economy.

4.30 Students will demonstrate several techniques that can be utilized in saving fuel.

4.31 Students will understand and demonstrate the proper attitude for fuel efficient driving.

4.32 Students will understand when a special or alternate vehicle is required.

4.0 ENERGY CONSERVATION

4.01 PERFORMANCE OBJECTIVES: Students will receive an of energy.

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
4.01 History of energy A. use of petroleum products B. indicators to show we are running out of petroleum C. cost of petroleum D. formation of petroleum E. other sources	1. Show how petroleum products were considered waste and either discarded or burned, but today these products are used for many purposes. 2. Stress that we are using our resources faster than nature can replace them. 3. Explain that there are many reasons for this; such as political motives, inflation and the increased demands for energy.
4.02 Types of energy used in automobiles A. looking for other source of energy B. compare gasoline to electricity C. other sources D. compare alternate fuels	4. Stress that we are using our resources faster than nature can replace them. 5. Explain that we used other resources of energy, such as the steam engine, before we started producing petroleum.
4.03 Conserving energy A. products transported in United States B. transporting of products without energy C. energy conservation	

overview and will have a general knowledge of history

LEARNING ACTIVITIES	RESOURCE MATERIALS
Have a class discussion on oil production including early oil drilling to modern drilling and other sources of energy.	Film - Transportation-- the Way Ahead, 45 minutes Energy Films Catalog U. S. Department of Energy Washington, DC 20545

Suggestion for discussion:

1. For what purposes were petroleum products first used?
2. What indicators show that we are running out of petroleum products at a rapid rate?
3. Why is the cost of petroleum products rising so fast?
4. How long does it take nature to form oil in the earth?
5. Discuss other sources of energy, before the gasoline engine.

4.0 ENERGY CONSERVATION

4.02 PERFORMANCE OBJECTIVES: Students will have a research.

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
4.10 Using the right type of vehicle for the task A. purpose of the vehicle	Explain the need for an alternative source of energy. Stress the need for research to develop better techniques in utilizing the resources that we have. Show the pros and cons of gasoline and electricity as energy sources.
4.11 Effect that optional equipment has on gas mileage A. area in which vehicle bill be used 1) highway 2) off-road B. size of vehicle C. power options 1) weight 2) energy D. air conditioner E. types of transmission 1) automatic 2) manual F. tires 1) radial 2) bias-ply	Explain that other sources of energy are available such as: hydrogen and solar energy. Special Assignment: Have students do research on different types of energy.

knowledge of the types of energy used in automobile

LEARNING ACTIVITIES	RESOURCE MATERIALS
Ask the student to identify many energy sources that will operate the automobile. Suggestion for discussion: 1. Why must we look for other sources of energy? 2. Compare the use of gasoline to electricity as a source of energy for the automobile. 3. Name other probable sources of energy. 4. Compare the use of alternate fuels, diesel, L.P. gas etc.	Hydrogen Fuel Solar Energy United States Department of Energy Oak Ridge, TN 37830

4.03 PERFORMANCE OBJECTIVES: Students will understand the

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
4.20 Maintenance improves fuel consumption A. ignition system 1) spark plugs 2) points B. automatic choke C. mixing of air and fuel in the carburetor D. tire pressure	Explain that our basic products are transported by truck, train, or air. Explain that without our natural energy resources, we would go back to horse and buggy days. Have the students go for one day without using a vehicle directly or indirectly, except busing to and from school.
4.30 Techniques used in saving fuel A. 55 mph speed limit B. starting and stopping C. idling the car	
4.31 Proper procedure in driving a vehicle	

importance of conserving energy.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Class discussion that our society is based on vehicle transportation. Suggestions for discussion: 1. How are products transported in the United States? 2. How would we transport our products if our resources were exhausted? 3. What would you do without a car?	

4.1 VEHICLE SELECTION FOR MINIMUM FUEL CONSUMPTION

4.11 PERFORMANCE OBJECTIVES: Student purchasing a vehicle on gas mileage.

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
	1. Explain that when driving on the highway, one needs a highly geared vehicle with fewer cylinders.
	2. When the vehicle is utilized for off-road use, vehicle should be equipped with lower gear ratios and perhaps a higher performance engine to maintain the power needed.
	3. Explain that all power options take energy and one should consider each option carefully. Each option will produce added weight.

will understand the effect that optional equipment has

LEARNING ACTIVITIES	RESOURCE MATERIALS
Class discussion to show that optional equipment may be used for convenience or as a necessary item. Optional equipment may or may not save fuel. Therefore, each item must be carefully selected. Suggestive Questions: 1. Where will you drive the vehicle? 2. Consider the size of the vehicle. 3. What effect does power options have on the vehicle?	How to Save Gasoline and Money Energy Information Center, Oklahoma Department of Energy Your Driving Costs American Auto Association 8111 Gatehouse Road Falls Church, VA 22047

VEHICLE SELECTION FOR MINIMUM FUEL CONSUMPTION

4.10 PERFORMANCE OBJECTIVE: Students will be able to

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
4.32 Using the vehicle when other alternatives are appropriate A. other alternatives B. car pooling C. ways to save fuel on trips (1) planning ahead (2) telephone first (3) picking routes	Explain that certain vehicles are made to do certain jobs with the least amount of fuel consumption. It is important to match the type of work for which it will be used. Go over the Gas Mileage Guide for New Car Buyers and compare the different vehicles. Stress that vehicles used for heavy work must have the proper gear ratio and engine large enough to handle the load.

identify the type of vehicle for the needed task.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Class discussion that it is important to match the vehicle to the type of work being done. Suggested Question: 1. For what purpose will the vehicle be used? 2. Compare vehicles that are used for heavy work and vehicles that are used for transportation.	Gas Mileage Guide U.S. Department of Energy Your Way to Better Fuel Economy Motor Vehicle Manufactures Association 300 NE W Center Building Detroit, MI 48202

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
A. air conditioner	4. Explain that the average air conditioner weighs approximately 100 pounds, and fuel consumption increases approximately 9% when in use.
B. types of transmission 1) automatic 2) manual	5. Explain that the new automatic transmissions with over-drive are being introduced to improve fuel economy, but generally speaking, manual transmissions give better gas mileage.
C. tires 1) radial 2) bias-ply	6. Explain that radial tires do help improve mileage over bias-ply tires. List as many options as possible that would help if they were on your vehicle. Explain how tinted glass and cruise control will help save fuel.

LEARNING ACTIVITIES	RESOURCE MATERIALS
4. Discuss the use of an air conditioner?	
5. Discuss the types of transmissions.	
6. Discuss tires in relation to fuel economics.	

4.2 VEHICLE CONDITION AS IT AFFECTS FUEL CONSUMPTION

4.20 PERFORMANCE OBJECTIVES: Students will know that

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
Maintenance reduces fuel consumption	Explain that a good tune-up will improve gas mileage in a vehicle about 10%.
A. ignition system a) spark plugs b) points	1. Explain how the spark plugs fire and how the distributor points work. (Late model cars do not have distributor points) Stress that bad points or plugs decrease performance and mileage.
B. automatic choke	2. Explain the purpose of the choke and what happens if it doesn't work properly.
C. mixing of air and fuel in the carburetor	3. Explain how air and fuel are mixed. Point out the need for clean filters and an adjusted carburetor.
D. tire pressure	4. Explain the need to keep the tire pressure at the recommended pressure that is listed in the owner's manual.

good vehicle maintenance improves fuel consumption.

LEARNING ACTIVITIES	RESOURCE MATERIALS
Class discussion on proper maintenance of your vehicle as a way to conserve energy.	Gas Watchers Guide American Automobile Association
Suggested Questions: 1. How does the ignition system work? 2. What is the function of the automatic choke? 3. How does air and fuel mix in a vehicle? 4. How will tire pressure affect gas mileage?	Your Way to Better Fuel Economy Motor Vehicle Manufactures Association 300 NE W Center Building Detroit, MI 48202
	Feather Foot The Oklahoma Challenge Oklahoma Department of Energy 440 N. Lincoln Blvd. Oklahoma City, OK 73105
List other ways that a person could maintain a vehicle to help fuel consumption such as properly balanced and inflated tires, and automatic brake adjustments.	Energy Efficent Driving Doron Precision Systems P.O. Box 400 Binghamton, NY 13902 Set of 3 Filmstrip/ Cassette Programs

4.3 USING THE VEHICLE FOR MAXIMUM EFFICIENCY

4.30 PERFORMANCE OBJECTIVES: Students will demonstrate

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
A. Techniques used in saving fuel	
1) 55 mph	1. Explain that slowing down not only saves fuel, but also saves lives.
2) starting and stopping	2. Explain that unnecessary accelerating and braking consumes fuel and stress. Smoothness is important to reduce consumption of fuel and reduce stress.
3) idling the car	3. Explain that when the engine is running and the vehicle isn't moving, it is getting zero miles per gallon.
4) cold engine	4. Explain that the driver should drive at moderate speeds on cold mornings until the engine is warm instead of idling the engine until it is warm.
5) other techniques	5. Have the students list other techniques that can save fuel.

several techniques that can be utilized in saving fuel.

LEARNING ACTIVITIES	RESOURCE MATERIAL
Class discussion to show different techniques that can be used to conserve fuel. Suggested Questions: 1. Why was the speed limit reduced to 55 mph? 2. What is the correct procedure in starting and stopping? 3. Why should one stop the engine when parked for more than one minute?	Film - Running on Empty The Fuel Economy Challenge (27 minutes) Energy Films U.S. Department of Energy Washington, DC 20545

4.3 USING THE VEHICLE FOR MAXIMUM EFFICIENCY

4.31 PERFORMANCE OBJECTIVES: Students will understand driving.

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
	Have students chart their parents' vehicles mileage and gas consumption. Explain that a mileage chart can also be indicator of mechanical problems. Special Assignment: Chart the Driver Education car's mileage and gas consumption. Stress that the Golden rule in driving is a good rule to use at all times.

and demonstrate the proper attitude for fuel efficient

LEARNING ACTIVITIES	RESOURCE MATERIAL
Class discussion to show that no matter how well a vehicle is maintained, if it isn't used correctly, the vehicle will consume more fuel than when used properly. Suggested Questions: 1. How can we become energy conscious? 2. If we use up all the fossil fuel in our generation, what will the next generation do?	Your Way to Better Fuel Economy Motor Vehicle Manufacture Association 300 NE W Center Building Detroit, MI 48202 Your Driving Costs American Automobile Association 8111 Gatehouse Road Falls Church, VA 22047 How to Save Gasoline and Money Energy Information Center Oklahoma Department of Energy 4400 N. Lincoln Blvd. Oklahoma City, OK 73105

4.3 USING THE VEHICLES FOR MAXIMUM EFFICIENCY

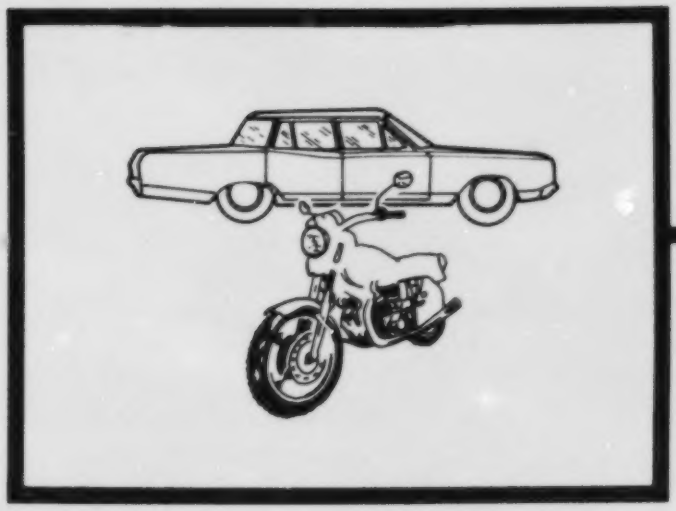
4.32 PERFORMANCE OBJECTIVES: Students will understand natives would be appropriate.

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
A. using the vehicle when other alternatives are appropriate (1) other alternatives (2) car pooling (3) ways to save fuel on trip a. plan ahead b. telephone first c. choose routes	1. Explain that using public transportation, motorcycle, bicycle, or even walking to work would save considerable on your fuel cost. 2. Explain that if only two people would car pool, that alone would be about 50% savings. 3. Stress that it is important to telephone first, if possible, to avoid wasted trips. Explain that a person may take vacations and other long trips by going with friends. Vacation closer to home. Choose routes that are the smoothest and that are not back tracking, etc.

when a particular vehicle is required or when other alter-

LEARNING ACTIVITIES	RESOURCE MATERIAL
Class discussion related to other alternative transportation forms and styles. Suggested Questions: 1. Name alternatives to driving your own vehicle to work. 2. What advantage would car pooling have? 3. Name ways that can save fuel by planning ahead on trips.	Your Way to Better Fuel Economy Motor Vehicles Manufacturing Tips for Energy Savers Gas Watchers Guide American Automobile Association 8111 Gatehouse Road Falls Church, VA 22047

The Automobile Driver And The Motorcycle



5.0 The Automobile Driver and the Motorcycle

OVERVIEW: With the increased number of motorcycles on our streets and highways, more caution and attention must be paid by the automobile driver for the safety of both.

PERFORMANCE OBJECTIVES:

5.1 Students will learn how the control of the cycle differs from the control of the automobile.

5.2 Students should be aware of the cycle-auto accident rate.

5.3 Students will understand a cyclist should see and be seen.

5.4 Students will understand the possible conflict points and the steps which should be taken by the cyclist and the automobile driver to avoid these conflicts.

5.5 Students should be aware of the word "Responsibility" as it pertains to vehicles and drivers.

5.6 Students will explain methods of communication between vehicle driver and cyclist.

5.1 PERFORMANCE OBJECTIVE: Students will learn how automobile.

5.2 PERFORMANCE OBJECTIVE: Students should be aware of

CONTENT OUTLINE	INSTRUCTORS PERFORMANCE
5.1 Comparison of motorcycle and automobile control	Demonstrate "loss of control procedure" through use of simulator, models or films.
5.2 Cycle-Auto Accident Rate	Give statistics on the number of accidents involving cycle-car. A death rate per 100 million vehicle miles driven is 5.5 times greater for cyclists than motorists.

control of the cycle differs from the control of the

the cycle-auto accident rate.

LEARNING ACTIVITIES	RESOURCE MATERIALS
1. In classroom using the format of matching questions, students must match vehicle performance to operator control of the vehicles. 2. Escape techniques, when necessary. Why the accident happened? 1. 4 of 5 fatal accidents involved a) violation by the cycle rider b) cycle poorly perceived in traffic c) other vehicles on the road are bigger and heavier than the cycle.	California Guide to Traffic Safety Bureau of Publications California State Department of Education 721 Capitol Mall Sacramento, CA 95814 (Pub. 1976) When You Take the Wheel Laidlaw Brothers River Forest, IL Copyright, 1963, p. 301 Sportsmanlike Driving American Automobile Association Falls Church, VA 22040 (P-364)

5.3 PERFORMANCE OBJECTIVE: Students will understand a

CONTENT OUTLINE	INSTRUCTORS PERFORMANCE
5.3 See and Be Seen	Demonstrate the blind spots in the auto. Tell how your rear view mirror can create a blind spot to block out a cycle rider.

cyclist should see and be seen.

LEARNING ACTIVITIES

1. Students will learn that cycle riders will select various portions of their lane to drive in.

2. A cyclist should be seen in both the center rear view and left side view mirrors of the vehicle ahead.

3. Auto driver should allow a cycle a whole lane and should not attempt to pass within same lane.

4. Watch for continuous flashing signal on cycle. It may be hung or signalling a turn

5. When driving at night, be alert for the distance between you and the cyclist

RESOURCE MATERIALS

California Guide to Traffic Safety
Bureau of Publications
P-67
California State Department of Education
721 Capitol Mall
Sacramento, CA 95814
(Published 1976)

Scotty Guide p. 215

Motorcycle Guide
Guides 7-9

Tennessee Motorcycle Operators Handbook P-10
Tennessee Department of Safety
Andrew Jackson Office Building
Nashville, TN 37219

Missouri Driver Education Curriculum Guide, P-35
Missouri State Department of Education
Central Missouri State College
Warrensburg, MO
1971-72 Publication
Number 1406

5.4 PERFORMANCE OBJECTIVE: Student will understand the taken by the cyclist and the

5.5 PERFORMANCE OBJECTIVE: Students should be aware of drivers.

CONTENT OUTLINE	INSTRUCTORS PERFORMANCE
5.4 Auto-Cycle Conflict Points	Explain how to identify correct and incorrect driver and cycle riders behavior and predict the outcome of each. Demonstrate with diagram of a car-cycle conflict such as a car turning left across the path of a cycle.
5.5 Responsibility	Explain the need of Responsibility not only in driving but all facets of life.

possible conflict points and the steps which should be automobile driver to avoid these conflicts.

the word "Responsibility" as it pertains to vehicles and

LEARNING ACTIVITIES	RESOURCE MATERIALS
A. Cyclist can improve visibility by the use of reflective material on his cycle, helmet and clothing. 1) cyclist rides with headlight on in any traffic situation where perception front and rear is critical. 2) avoiding the conflict when possible. 3) severity of the conflict. 4) driver of auto should yield to a cycle proceeding straight through the intersection. a) the student should be "alert" constantly when driving where cycles are present. b) follow cycle at a safe distance.	California Guide to Traffic Safety Bureau of Publications California State Department of Education 721 Capitol Mall Sacramento, CA 95814 Published 1976 P-68

5.6 PERFORMANCE OBJECTIVE: Student will explain methods

CONTENT OUTLINE	INSTRUCTORS PERFORMANCE
5.6 Car-Cycle Communication	Explain that the very word "Motorcycle" leads some auto drivers to irrational behavior and prejudice. The very word "Motocycle" is to some a form of prejudice which leads to irrational behavior, as does all other forms of prejudice. The driver must perceive that the motorcycle and its rider are not a threat to him or her personally. This may require overcoming negative images of "freedom" or "irresponsibility" or "delinquency maybe communicated to some minds because of leather jackets, helmets, constant lane adjustment, or engine sound of the motorcycle.

of communication between vehicle driver and cyclist.

LEARNING ACTIVITIES	RESOURCE MATERIALS
1. Both the cyclist and auto driver must attempt to perceive each others intentions as early and as accurately as possible. 2. A cycles signal is more likely to be false than an auto because it does not automatically snap off.	California Guide of Traffic Safety P-70 Bureau of Publications California State Dept. of Education 721 Capitol Mall Sacramento, CA 95814 Published 1976 Film Catalog Oklahoma State Dept. of Education Defensive Driving Tactics---12 min. Motocycle Riding Tactics 15 minutes.

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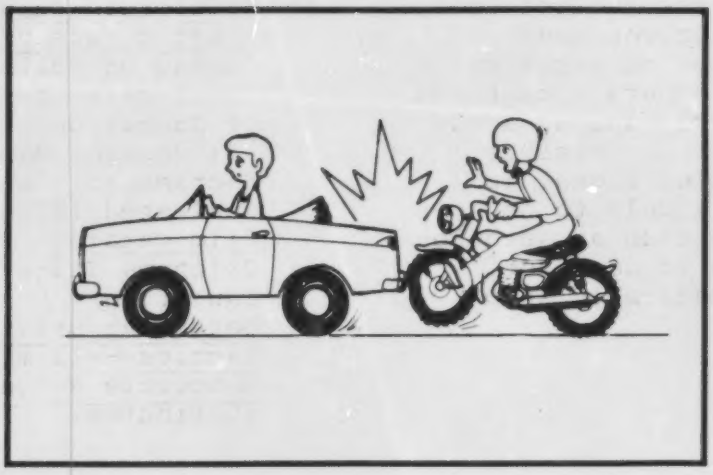

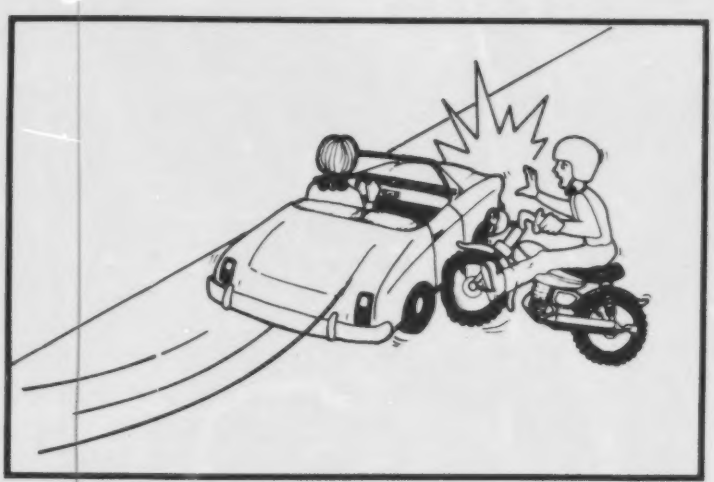

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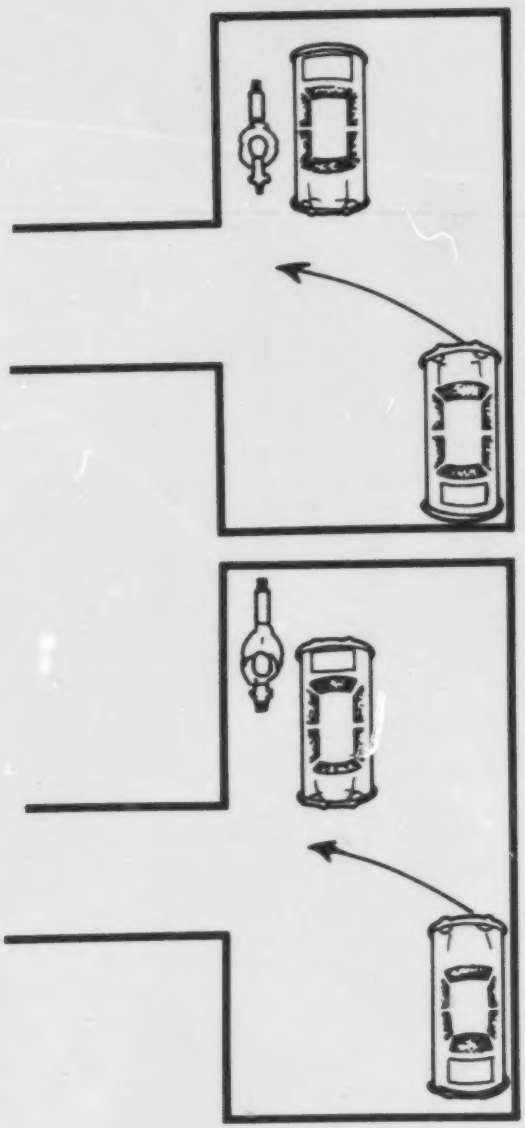

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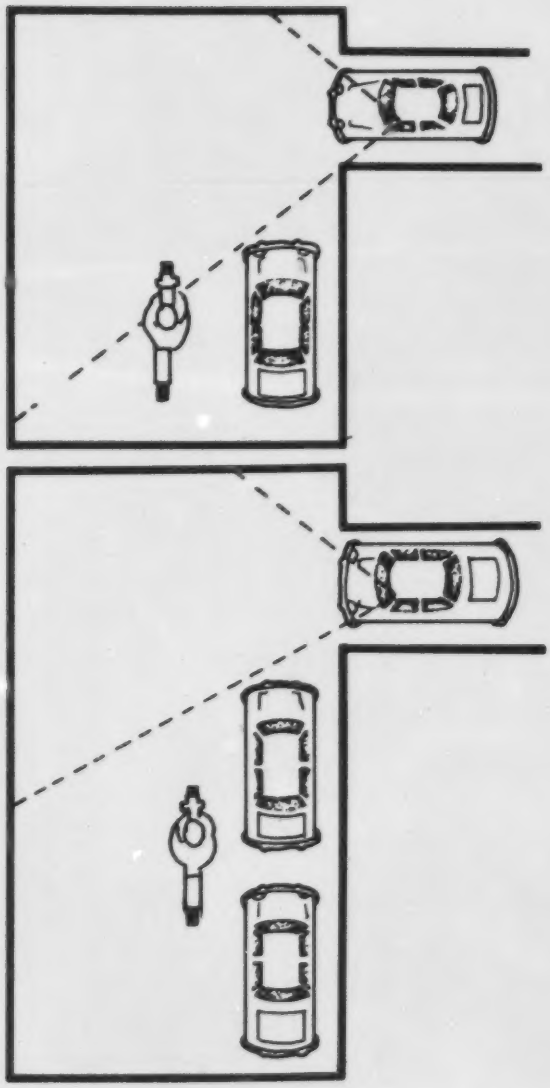

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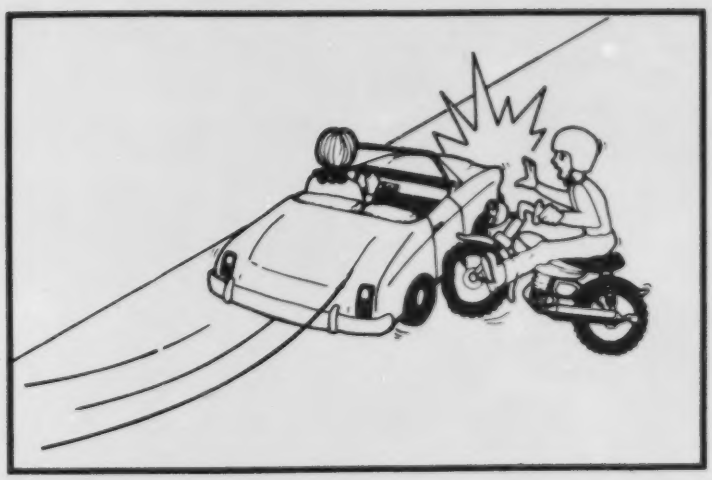

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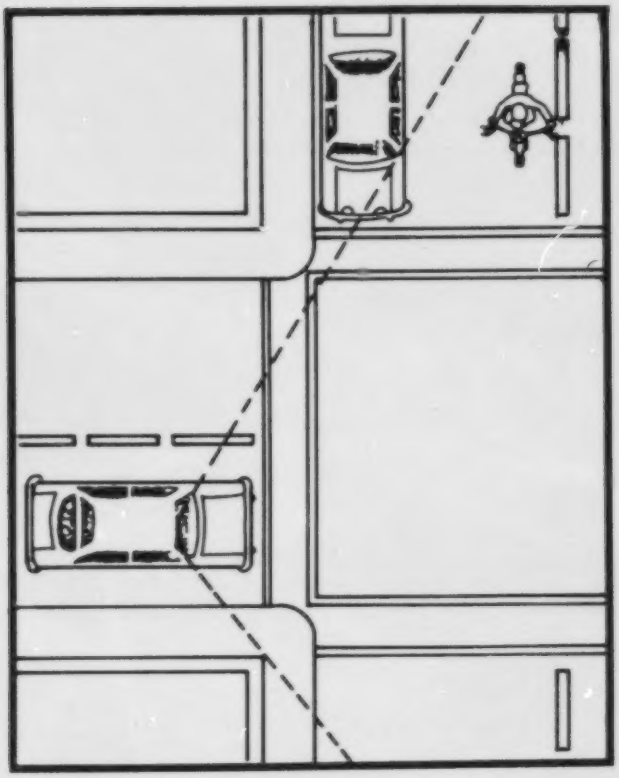
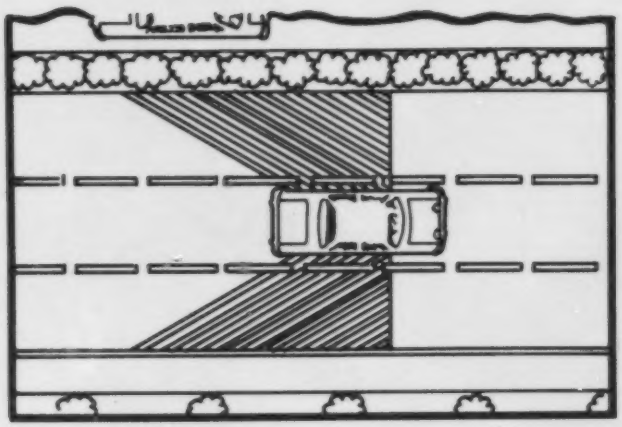
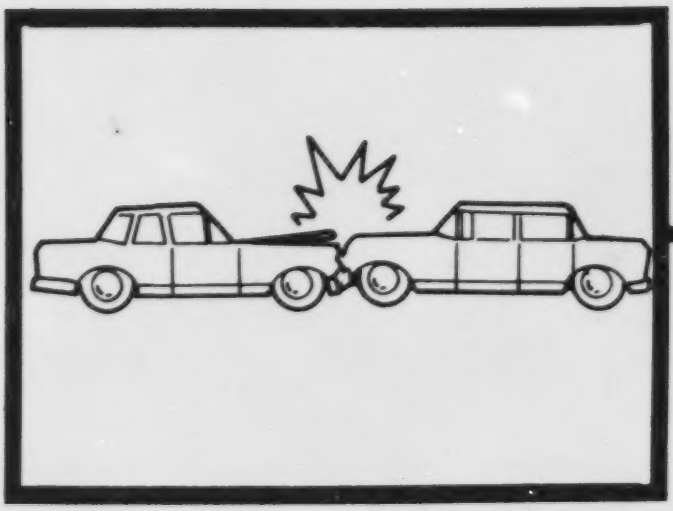




Alcohol, Drugs, And Driving



6.0 BACKGROUND INFORMATION

A study by the Department of Police Administration at Indiana University shows that the relative probability of a driver causing a traffic accident increases with the amount of alcohol consumed, as measured by Blood Alcohol Concentration (BAC). For a BAC of .02 percent, the probability of having an accident seems to be no greater than that for a BAC of .00 percent. However, when the BAC reaches .08 percent, the probability of having a traffic accident is 5 times greater than that for a BAC of .00 percent. At a BAC of .12 percent, the accident probability is about 12 times greater; and at a BAC of .15 percent, the probability is about 25 times greater. These and other facts presented in earlier lessons leave no doubt that it is dangerous to drink and drive. The physiological and behavioral effects of alcohol include impaired judgment, slower reaction time, and poorer vision. These effects all have consequences for the driving task.

One of the first effects of alcohol is reduction in inhibitions followed by impairment of judgment (see illustration 4A. arrow 1). Because of this, the drinking driver tends to overestimate his (her) driving skills and is more likely to drive.

Even professional driving experience cannot make up for this alcohol impairment. This was demonstrated in a test of driving skill in which professional race and rally drivers were used as subjects. A pretest was administered to establish baseline performance levels. It was found that the best of the pros made 7 errors in the pretest. None of the drivers felt that the amount of alcohol they were going to drink would greatly affect their driving performance. However, during the post-test, after moderate drinking, the best drivers made 22 errors. When intoxicated, the best drivers made 42 errors. These errors included driving too fast, wavering out of lane markings, judging distance inaccurately, running through traffic lights and stop signs, not adjusting speed to roadway changes, and making unnecessarily abrupt stops.

Drivers who have been drinking also exhibit slower reaction time. Alcohol's effects on both the association areas (areas contolling high-level thought processes) and motor areas of the brain, as well as its relaxing effects upon the muscles, contribute to this symptom (see illustration 4A, arrow 2). After consuming a few drinks, a young person will have even slower reflexes---in situations that require split-second responses.

These slower reaction times could be deadly. According to a study by the National Public Service Research Institute, over half the teenagers involved in alcohol-related accidents had BAC's of only .02 percent--the level produced by one drink. This level is legally defined as sober.

As alcohol affects the brain, it also affects other parts of the body, such as muscles, causing them to relax. This is a critical factor in vision (see Illustration 4A, arrow 3). Visual impairment caused by drinking can happen after a person consumes very few drinks, thereby reducing one's ability to perform the driving task safely. Effects of alcohol on vision are described in greater detail in Module B.

RESOURCE MATERIAL

6.0 Films may be obtained from Media Resource Center State Department of Education, 2500 North Lincoln, Oklahoma City, OK 73105

1. Drinking Driver, The
2. Space Driving Tactics
3. Defensive Driving: Are You Warm to the Touch?
4. Alcohol and Red Flares
5. Bottle and the Throttle, The
6. Alco Beat
7. Alcohol and You
8. DWI Phoenix
9. Getting Busted
10. Go Sober and Safe
11. Highball Highway
12. None for the Road
13. There's a Message in Every Bottle
14. Drugs, Drinking and Driving
15. Driving and Drugs
16. Drugs in Perspective (Professional only)
17. Drugs: Facts Everyone Needs to Know
18. What do Drugs do

ALCOHOL, DRUGS, AND DRIVING

Overview:

All drugs effect the user. The effects of a drug are a function of the dosage - the amount taken - and the physiological and psychological state of the user. The relationship of dosage and effects have been documented for alcohol, which undergoes a unique enzyme reaction in the body. Further, the amount of alcohol in a person's body can be measured accurately. Therefore, the impact of alcohol use on an individual's driving and on traffic safety in general can be demonstrated.

Alcohol is the proven cause of many highway accidents. The combination of alcohol and other drugs is also the known cause of many deaths, particularly those that are traffic related. However, the effects of drugs other than alcohol on the body are much more complex and more difficult to quantify or predict. Methods of identifying and measurying drugs other than alcohol in driver's bodies are not well enough developed to provide the same kind of evidence about their impact on traffic safety. Moreover, few studies of the effects of drugs other than alcohol have focused on the driving population, so traffic related data can only be inferred in most cases.

Preformance Objectives:

6.1 Students will develop an understanding of the effects of alcohol and other drugs on abilities related to the driving task.

6.2 Students will cite evidence that drinking greatly increases the probability of a driver being involved in a traffic accident.

6.2.1 Students will describe the effects of alcohol on skills needed to perform the driving task safely.

6.3 Students will describe the effects of alcohol upon the pupil, lens, and retina of the eyes.

6.3.1 Students will describe the effect of alcohol upon binocular and peripheral vision.

6.4 Students will list what can be done by drivers themselves, by hosts and hostesses, and by friends of drivers to avoid the consequences of drunk driving.

6.5 Students will describe the possible effects of various drugs other than alcohol on driving skills.

6.1 PERFORMANCE OBJECTIVE: Students will develop an understanding of abilities related to the driving

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
6.1.0 The Effects of Alcohol on Driving Skills	
6.1.1 Impaired Judgment	One of the first effects of alcohol is reduction in inhibitions followed by impairment of judgment (see Illustration 4A, arrow 1). Because of this, the drinking driver tends to overestimate his (her) driving skills and is more likely to drive recklessly and to take unnecessary risk than is the sober driver. Possible discussion questions: How would impaired judgment, slower reaction time, or poor vision detract from driving ability? How would you feel about riding with a driver whose judgment was impaired, reaction time slowed, or vision was poor?

standing of the effects of alcohol and other drugs on task.

LEARNING ACTIVITIES	RESOURCE MATERIALS
6.1.1 Discussion Participate in a discussion of the effects of alcohol on driving skills.	Lee N. Hames American Medical Assoc. 535 North Dearborn Street Chicago, IL 60610 Mixing Alcohol and Gasoline Safely Conducting Alcohol and Drug Education in School
6.1.2 Drawing and explanation Prepare a large drawing of the cerebral cortex for classroom display. Label the functions located in various parts of the brain. Explain how impairment of these functions affects the driving task. Have students to write a paragraph describing the psychological and behavioral effect of alcohol that have implications for the driving task, citing evidence of these effects.	

CONTENT OUTLINE	INSTRUCTORS PERFORMANCE
6.1.2 Slower Reaction Time	Drivers who have been drinking also exhibit slower reaction time. Alcohol's effects on both the Association areas (areas controlling high-level thought processes) and motor areas of the brain, as well as its relaxing effect upon the muscles, contribute to this symptom (see illustration 4A, Arrow 2) In situations that require split second responses, these slower reaction times could be deadly.
6.1.3 Poorer Vision	As alcohol affects the brain, it also affects other parts of the body, such as muscles causing them to relax. This is a critical factor in vision (see illustration 4A, arrow 3) Visual impairment caused by drinking can happen after a person consumes very few drinks, thereby reducing one's ability to perform the driving task safely.
6.2 PERFORMANCE OBJECTIVE:	Students will cite evidence driver being involved in a
6.2.0 The Effects of Alcohol on functioning of the eyes	Lead class in group discussion

LEARNING ACTIVITIES	RESOURCE MATERIALS
6.1.3 What percent of teenagers involved in alcohol-related accidents had BAC's of only .02 percent, the level produced by one drink.	

that drinking greatly increases the probability of a traffic accident.

National Highway Traffic
Safety Administration
"Friends Don't Let Friends
Drive Drunk"
U. S. Department of
Transportation
Washington, DC

6.2.1. PERFORMANCE OBJECTIVE: Students will describe the driving task safely.

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
6.2.1 Effects of Alcohol on the pupil	The pupil of the eye, the opening that controls the entry of light into the eye, is governed by small muscles. Normally, the eye can close against glare in one second. Then the pupil takes about seven seconds to open again. This reaction time is slowed substantially by alcohol. An individual who has been drinking can be temporarily blinded by light at night because of the slowed action of the pupils.
6.2.2. Effects of Alcohol on the lens	The lens is the portion of the eye that focuses. The muscles controlling the lens of the eye are also relaxed by alcohol, making focusing difficult. Therefore, the image received by an individual who had been drinking may not be clear.
6.2.3 Effects of Alcohol on the Retina	The retina is the portion of the eye that receives the image formed by the lens. It is the immediate instrument of vision. The retina contains rods and cones. Together, they detect light, dark, and color. Alcohol reduces the supply of oxygen to the cones. This, in turn, reduces visual sharpness. In dim light, acuity is reduced even more.

effects of alcohol on skills needed to perform the

LEARNING ACTIVITIES	RESOURCE MATERIALS
6.2.2 Have student conduct a demonstration. Using a powerful flashlight in a darkened room, flash the beam into the eyes of volunteers and have them describe to the other students the reactions of their eyes (or the effect on their sight) as they occur. Have students measure the time it takes to restore normal vision. Have students provide pictures or print for them to describe or read, illustrating visual acuity at different points in the demonstration. Have students discuss the effect that alcohol could have on the muscle that controls restoration of normal vision after a glare.	

CONTENT OUTLINE		INSTRUCTOR PERFORMANCE
6.2.4	Effects of Binocular Vision	The muscles of two eyes work together to focus both eyes on the same point. If these muscles are relaxed by alcohol, focusing becomes more difficult and double vision can result.
6.2.5	Effects on Peripheral Vision	Peripheral vision is also reduced as eye muscles become relaxed by alcohol, creating a narrowed range of sight. Narrowed sight becomes even more significant when drivers who have been drinking attempt faster driving speeds. Such drivers are less likely to see approaching cars, lights, and obstructions. They are therefore more likely to have accidents.
6.3	PERFORMANCE OBJECTIVE:	Students will describe the the eyes.
6.3.0	Avoiding problems caused by drinking and driving	Lead group discussion

LEARNING ACTIVITIES	RESOURCE MATERIALS
6.2.5 Have student make arrangements to visit an elementary or junior high school for the purpose of informing younger students about the effects of alcohol on the functioning of the eyes. Observe their preparation for the assignment.	effects of alcohol upon the pupil, lens, and retina of National Highway Safety Administration "Young People and Alcohol" Washington, DC U. S. Department of Transportation

6.3.1 PERFORMANCE OBJECTIVES: Students will describe the

CONTENT OUTLINE	INSTRUCTORS PERFORMANCE
6.3.1 What drivers can do.	Publications about the effects of alcohol on the driving task and statistics about alcohol-related traffic accidents show that people should not drive if they have been drinking. In today's society, however, people still drive to places where they will drink and then drive home. What can these people do to avoid the risk of accidents? Following are some suggestions: 1. Set a limit on drinks and stick to it. 2. Drink in a leisurely, unhurried way to give the body time to oxidize the alcohol. 3. Eat while you drink. 4. Stop drinking an hour or two before driving. 5. Ask a friend or relative who is sober to drive. 6. Arrange for a taxi ride home. 7. Don't drink everytime. Arrange a buddy system with friends, taking turns abstaining and driving home.

effect of alcohol upon binocular and peripheral vision.

LEARNING ACTIVITIES	RESOURCE MATERIAL
6.3.1 Discussion of situations. In smaller groups or as a whole class discuss the situations and issues on Resource D and E, using the discussion questions provided. Report conclusions to the rest of the class (if divided into groups) Each group invent another situation, perhaps based on real experiences, and present it to the other group for reaction.	

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
6.3.2 What hosts and hostesses can do	Lead group discussion--Hosts and hostesses at gatherings where people are drinking have a moral, and sometimes legal, responsibility to see that their guests do not drive if intoxicated. There are several things that a responsible, thoughtful host or hostess can do to minimize the effects of alcohol on their guests. 1. Make rich snacks or a meal part of the party. Food can slow down the absorption of alcohol into the system. Also, eating gives people something to do besides drinking, so they may drink less. 2. Make mixed drinks of normal size. Don't serve doubles. 3. If guests are going to serve themselves, keep a jigger or two handy at the bar. People are less likely to drink to excess if standard measures are used. 4. If punch is served, don't use a carbonated base. Alcohol is absorbed much faster when combined with a carbonated drink. Be sure to have some non-alcoholic drinks available, too.

LEARNING ACTIVITIES	RESOURCE MATERIALS
6.3.2 1. Situation It is past midnight when you get a phone call from a friend. Your friend is drunk (or stoned) and needs a ride home. It is obvious from the way your friend sounds that this is true. Several thoughts run through your mind: Should you tell your parents? Isn't there someone who could take your friend home? Is your friend really that bad off? 2. Listen and react-- Participate in class discussion by expressing opinions about the information presented and presenting other ideas if possible. 3. (Film) see page 270 or discussion-- Watch the film or participate in class discussion. Take notes and develop a check list or guidelines for defensive driving. 4. Guidelines-- Work in teams to develop guidelines to follow when you or your friends drink and have to drive. 5. Teams report to the rest of the class and combine the best of their guidelines into a comprehensive list.	

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
6.3.2	5. Don't have a lot of bottles sitting around prominently at the party. It might make it seem as if drinking is the focus of the gathering and lead people to believe that heavy drinking is expected. 6. Make sure that there is a variety of activities other than drinking, such as eating, games and dancing. This makes for a better party and for fewer drinking related problems afterwards. 7. If a guest is drinking heavily, ask the guest to slow his or her rate of consumption or try to divert his or her attention to another activity. Offer to mix the next drink and make it a weak one. 8. Stop serving drinks about an hour before the party is to end. Switch to coffee or tea. This will give all the guests a buffer of time to allow the body to oxidize any remaining alcohol. 9. Don't pressure guests to drink or insist on refilling the glass as soon as it is empty.

LEARNING ACTIVITIES		RESOURCE MATERIAL
6.3.2	6. An issue for Discussion- Minding your own business vs helping those in need. Some say that people are basically selfish. They say that if you don't watch out for yourself, no one else will. The key to success, they say, is to "mind your own business." Others say that people need to stick together and help one another. They say that we should "help those in need." How do you feel about these ideas? Talk about the following situations to help clarify your feelings.	

CONTENT OUTLINE INSTRUCTOR PERFORMANCE

6.3.2

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LEARNING ACTIVITIES	RESOURCE MATERIALS
Situations: What would you do in each of the following situations? 1. You are at a party when someone is very drunk and sick. 2. You are with some friends. One of them has had too much alcohol or another drug to drive safely but is planning to drive home anyway. 3. You are with a group of people with whom you would like to be friends. Two of them try to persuade a third friend to take some liquor from his or her parents' supply cabinet. 4. You are with a group of people with whom you would like to be friends. Someone in the group is passing out unidentified pills and everyone is taking some. 5. One of your friends seems to be drinking more and more. Every-time you see this person he or she has had something to drink. 6. One of your friends is smoking pot or taking pills more and more and is losing interest in other activities.	

CONTENT OUTLINE INSTRUCTOR PERFORMANCE

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LEARNING ACTIVITIES	RESOURCE MATERIALS
7. Some of your friends suggest "spiking" the soft drinks of the nondrinkers at a party. 8. Some of your friends want to dust the potato chips at a party with some unidentified powder. Questions for Discussion: 1. What would you do? 2. What do you think of the friend who called? 3. How might the friend react if you refused? 4. How would you describe the meaning of "friend"? 5. How would your parents react to your friend's request? Would they respond differently if your friend was taking drugs than if your friend was drinking? 6. Would you call a friend in this situation? Have students make a list of things they would do to avoid the consequences of drunk or drugged driving.	

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
6.3.3 What To Do if a Person is Drunk	6.3.3 Lead group Discussion: If a person is drunk and insists upon driving, there are several things the host or hostess can do, some more drastic than others. It is important to remember that human lives are at stake. 1. Point out reasons why the person should not drive. Remind the person that arrest for driving while intoxicated can result in a jail sentence, loss of license, and an increased insurance premium. 2. Occupy the person until he or she has had time to sober up. 3. Propose alternatives to driving. Drive the person home, have someone who is sober drive, or call a taxi. 4. Take the car keys from the driver or take the coil wire off of the car if necessary. 5. Physically restrain the driver, if necessary. 6. Call the police.

LEARNING ACTIVITIES	RESOURCE MATERIALS
6.3.3. Have students make a list of things they would do to avoid the consequences of drunk or drugged driving.	

6.4 PERFORMANCE OBJECTIVE: Students will list what can and by friends of drivers to

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
6.4.1 What drivers can do	Publications about the effects of alcohol on the driving task and statistics about alcohol-related traffic accidents show that people should not drive if they have been drinking. In today's society, however, people still drive to places where they will drink and then drive home. What can these people do to avoid the risk of accidents? Following are some suggestions. 1. Set a limit on drinks and stick to it 2. Drink in a leisurely, unhurried way to give the body time to oxidize the alcohol 3. Eat while you drink 4. Stop drinking an hour or two before driving 5. Ask a friend or relative who is sober to drive 6. Arrange for a taxi ride home 7. Don't drink everytime. Arrange a buddy system with friends, taking turns abstaining and driving home.

be done by drivers themselves, by hosts and hostesses, avoid the consequences of drunk driving.

LEARNING ACTIVITIES	RESOURCE MATERIAL
6.4.1 Discussion of Situations in smaller groups or as a whole class discuss the situations and issues on Resource Material using the discussion questions provided. Report conditions to the rest of the class (if divided into groups). Each group invent another situation, perhaps based on real experiences, and present it to the other group for reaction.	

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
6.4.2. What Hosts and Hostesses can do	Lead group discussion hosts and hostesses at gatherings where people are drinking have a moral, and sometimes legal, responsibility to see that their guests do not drive if intoxicated. There are several things that a responsible, thoughtful host and hostess can do to minimize the effects of alcohol on their guests. 1. Make rich snacks or a meal part of the party. Food can slow down the absorption of alcohol into the system. Also, eating gives people something to do besides drinking, so they may drink less 2. Make mixed drinks of normal size. Don't serve doubles 3. If guests are going to serve themselves, keep a jigger or two handy at the bar. People are less likely to drink to excess if standard measures are used 4. If punch is served, don't use a carbonated base. Alcohol is absorbed much faster when combined with a carbonated drink. Fruit juice is a better mixer. Be sure to have some nonalcoholic drinks available, too.

LEARNING ACTIVITIES	RESOURCE MATERIAL
6.4.2 Situation: It is past midnight when you get a phone call from a friend. Your friend is drunk (or Stoned) and needs a ride home. It is obvious from the way your friend sounds that this is true. Several thoughts run through you mind;Should you tell your parents? Isn't there someone who could take your friend home? Is your friend really that bad off? 2. Listen and React Participate in class discussion by expressing opinions about the information presented and presenting other ideas if possible. 3. Film or Discussion Watch the film or participate in class discussion. Take notes and develop a check list or guidelines for defensive driving. 4. Guidelines Work in teams to develop guidelines to follow when you or your friends drink and have to drive. 5. Teams report to the rest of the class and combine the best of their guidelines into a comprehensive list.	

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
6.4.3. What to do if a person is drunk	Lead group discussion: If a person is drunk and insists upon driving, there are several things the host or hostess can do, some more drastic than others. It is important to remember that human lives are at stake. 1. Point out reasons why the person should not drive. Remind the person that arrest for driving while intoxicated can result in a jail sentence, loss of license, and an increased insurance permium. 2. Occupy the person until he or she has had time to sober up. 3. Propose alternatives to driving. Drive the person home, have some one who is sober drive, or call a taxi. 4. Take the car keys from the driver or take the coil wire off of the car if necessary. 5. Physically restrain the driver, if necessary. 6. Call the police.

LEARNING ACTIVITIES RESOURCE MATERIAL

6.5 PERFORMANCE OBJECTIVE: Students will describe the driving skills.

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
6.5.0. Effects of Other Drugs on Driving	6.5.0. Discussion, Define and Explain
6.5.1. Antihistamines	6.5.1. Variations in drug effects and in individual responses to drugs have made it difficult to collect conclusive data on the impact of drugs in a drivers body are not well developed. When the presence of a drug can be determined, statements about the level of its effect are inconclusive. Nonetheless, many studies have reported deteriorating effects of common dosages of specific drugs on skills believed to be associated with the driving task (reaction time, depth perception, visual acuity, peripheral vision, glare recovery, and steadiness.)

possible effects of various drugs other than alcohol on

LEARNING ACTIVITIES	RESOURCE MATERIAL
6.5.1. Students divide up into teams and on their own go out and interview doctors of the community, bring back the material and have discussion sessions on what they found out on drugs, its effects and its abuse. 1. Library assignment or research paper 2. Make posters and collages on drugs and effects 3. Group Discussion Discuss the attitude of society toward entertainment figures who frequently portray drunks. Does this attitude cause problems for persons who take seriously the responsibility for keeping drunks, both friends and strangers, from driving?	6.5.0 1. Girdano and Girdano Drug Education: Content and Methods Reasing Mass: Addison Wesley Publishing Co. 1972 2. Indiana University, Drugs and Driving: A Research Review. Washington D.C U.S. Department of Transportation NHTSA, 1975 3. Films on Drugs and Driving 4. University of Wisconsin Drug Use and Highway Safety: A review of the Literature. Washington D.C. U.S. Department of Transportation, NHTSA 1971

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
	Further, the very unpredictability of drug effects is good reason for the driver to be aware of potential effects of drugs--both licit and illicit--on the driver. Described below are known or suspected effects of various drugs that may affect a driver's ability to drive safely.
	1. Over-the-counter and prescription antihistamines, including cold, cough, sinus, and hay fever medications, are so widely taken that many people are tempted to ignore the warnings printed on their labels.
	"May cause drowsiness. Do not drive a car or operate machinery after use." These drugs, even when taken in the recommended dosages, have a sedative effect that are essential to competent driving. When taken in combination with alcohol, these sedative effects are amplified.
	Individuals should carefully note their reactions to such over-the-counter drugs and plan their driving accordingly.

LEARNING ACTIVITIES	RESOURCE MATERIAL
Are attitudes toward drug users the same? If not, why do you think there is a difference? Is the problem of keeping drug-affected people from driving the same as for alcohol users?	

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
6.5.2 Depressants	6.5.2 Depressants have shown to impair driving performance, primarily because they produce drowsiness, extreme relaxation, and reduce ability to concentrate.
a. Barbiturates	a. Barbiturates also produce an effect on the central nervous system similar to that of alcohol: coordination, perception, and fine muscle control are impaired by their use. The user may experience feelings of euphoria and may falsely interpret his or her ability to drive safely.
b. Narcotic analgesics (opiates)	b. Driving while under the influence of heroin and other opiates is dangerous because apathy and stupor are produced and judgment and reflexes necessary for the driving task are impaired.
c. Glue Sniffing	c. The euphoria, intoxication and possible delirium caused by sniffing glue or other volatile chemicals make driving risky after experiencing the drug.

LEARNING ACTIVITIES RESOURCE MATERIAL

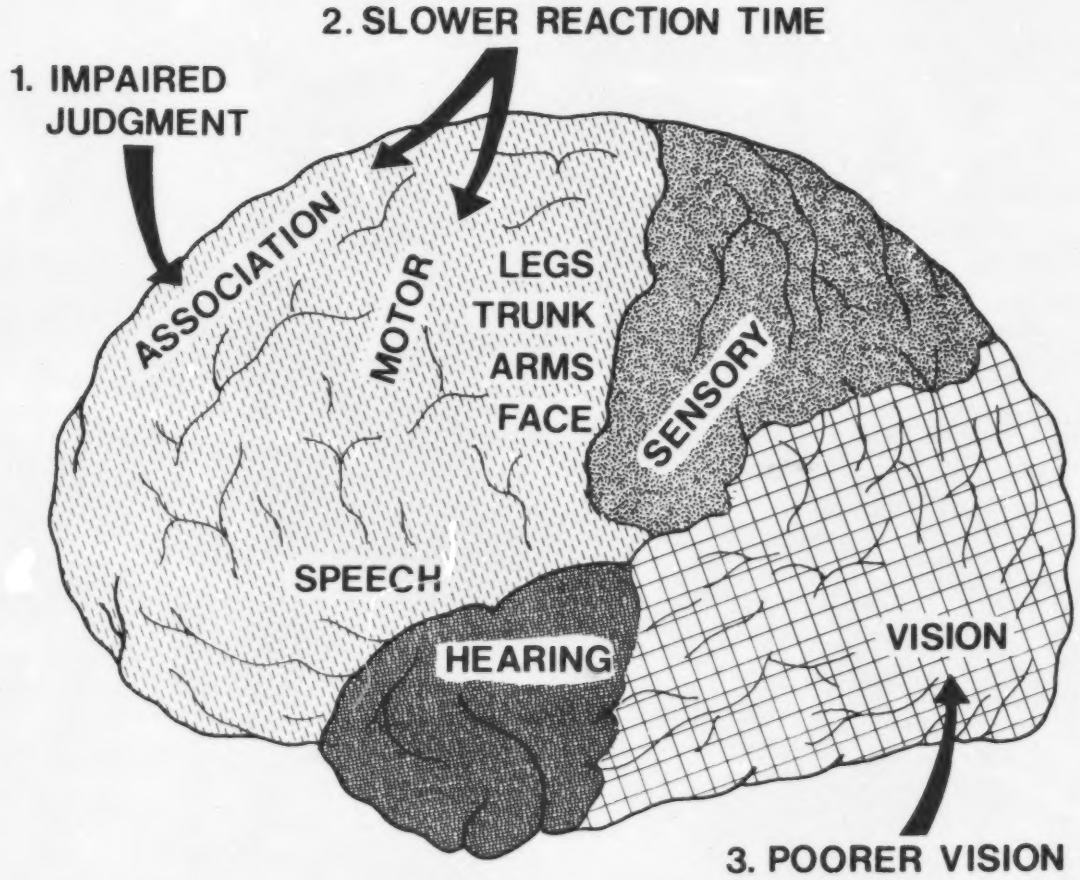
CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
6.5.3. Stimulants	6.5.3. The effects of stimulants on driving are less clear. Experimental studies have produced conflicting results. However, some stimulants have been shown to impair driving performance in some situations, primarily because of irritability, overactivity, overestimation of abilities, and lack of concentration.
a. Amphetamines	a. Amphetamines can be dangerous to drivers because they give the driver a false feeling of alertness and self confidence. Sometimes driver, especially people who drive professionally, try to stretch their driving time artifically by using amphetamines. This is a dangerous practice because drivers need to be able to guage accurately their true ability to react so that they do not take unnecessary risks. Amphetamines can also cause irritability which can lead to faulty judgment.

LEARNING ACTIVITIES RESOURCE MATERIAL

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
6.5.4. Hallucinogens	6.5.4. Driving while using hallucinogens can be a very dangerous practice. The person's perception of reality is distorted, so motor coordination and visual perception may have little relation to the driver's real situation. It has been suggested that this may be a greater traffic safety problem with marijuana because marijuana users tend to overestimate their abilities to drive while taking the drug.
a. Marijuana	a. Various studies have been conducted on the effects of marijuana on driving skills. Results have been mixed. Some conclude that it is dangerous to drive after using marijuana. Since marijuana is a mild hallucinogen that can act as either a stimulant or a depressant, individual reaction to the drug depends a great deal on the user's mood and drug experience. Several studies have shown that the use of marijuana adversely affects visual perception and hand and

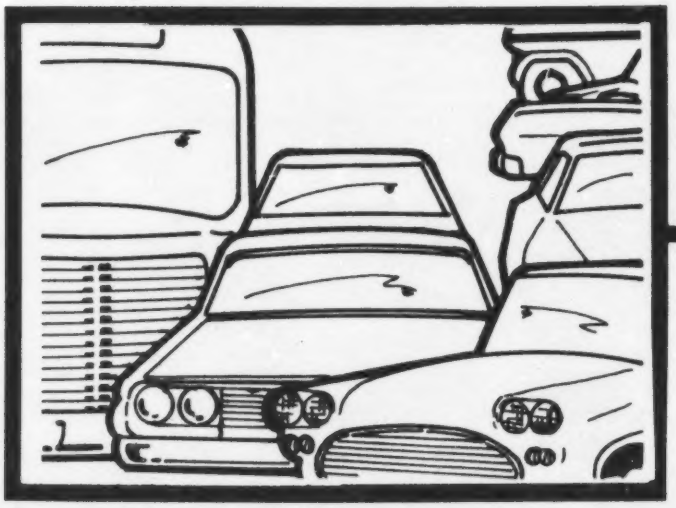
LEARNING ACTIVITIES	RESOURCE MATERIAL

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
	body steadiness and distorts one's sense of time. The effects on visual perception and timing are especially crucial to the driving task. According to Canadian study, "the smoking of marijuana by human subjects had a detrimental effect upon their driving skills and performance in a restricted driving area; this affect was even greater under normal conditions of driving on city streets."



TRANSPARENCY MASTERS

The Automobile And The Atmosphere



7.0 Air Pollution:

Causes, Effects, and Counter Measures

OVERVIEW:

As people become more dependent on Technology, the air becomes increasingly contaminated.

PERFORMANCE OBJECTIVES:

7.1 Students will demonstrate an understanding of the nature of air pollution

7.2 Students will demonstrate an understanding of the health effect of air pollution

7.3 Students will demonstrate a knowledge of methods used to reduce air pollution

7.4 Students will list some other effects of air pollution

7.5 Students will list transportation control strategies.

7.2	PERFORMANCE OBJECTIVE:	Students will demonstrate an
7.2	Health effects of air pollution	1. Discuss carbon monoxide. 2. Explain some serious respiratory diseases that can be caused by polluted air.

understanding of the nature of air pollution.

LEARNING ACTIVITIES	RESOURCE MATERIALS
1. Have an understanding of the three main processes that contribute to air pollution 2. Summarize the reasons for presence of pollutants in our atmosphere 3. Demonstrate an understanding of the terms related to air pollution 4. List at least five chemical components of air pollution and the major source of each	California Guide to Traffic Safety Education Bureau of Publications California State Department of Education 721 Capitol Mall Sacramento, CA Published 1976

understanding of the health effect of air pollution.

1. Summarize the health effect of carbon monoxide on human beings
2. Predict future health effect if continued use of the auto goes unchecked
3. Contrast pollution in urban centers with pollution in the rural areas.

7.3 PERFORMANCE OBJECTIVE: Students will demonstrate a

CONTENT OUTLINE	INSTRUCTOR PERFORMANCE
7.3 Reducing air pollution	Discuss how the government placed regulations on manufacturing companies and auto makers to help reduce air pollution

knowledge of methods used to reduce air pollution.

LEARNING ACTIVITIES	RESOURCE MATERIALS
1. Identify two approaches used in reducing auto-related pollution.	Sportsmanlike Driving American Automobile Association Falls City, VA 6th Edition PP-270
2. Prepare a brief paragraph for class discussion on air pollution devices presently being used to curb auto emissions.	
3. Predict the types of standards and emission control devices that will be used for motor-cycles.	
4. Prepare a discussion of one of the following: Rotary engine, diesel engine, electric motor, or bottled gas engine.	
5. Prepare a report for class on the auto inspection and maintenance programs in our state.	
6. Explain the role of the tail pipe in auto emissions and air pollution. List the control devices presently used to remedy the tail pipe emission problem.	

7.4 PERFORMANCE OBJECTIVE: Students will list some other

CONTENT OUTLINE	INSTRUCTORS PERFORMANCE
7.4 Other Effects of Air Pollution	Point out how air pollution affects other forms of life and matter.

effects of air pollution.

LEARNING ACTIVITIES	RESOURCE MATERIALS
1. Summarize the effects of pollution on animals.	California Guide to Traffic Safety Education Bureau of Publications California State Department of Education 721 Capitol Mall Sacramento, CA 95814 Published 1976
2. Research specific effects of pollution on vegetation in your region of the state.	
3. Demonstrate from your personal experience how pollution limits the enjoyment of one's surroundings.	
4. Prepare a brief class presentaiton supporting the thesis that "the support and cooperation of every citizen is essential in the fight against air pollution".	
5. Demonstrate an understanding of economic losses as a result of dirty air.	
6. Compare the cost of a car equipped with pollution control devices to an unequipped vehicle. State whether or not you feel the cost of auto pollution is worth it.	

7.5 PERFORMANCE OBJECTIVE: Students will list some

	CONTENT OUTLINE	INSTRUCTORS PERFORMANCE
7.5	Transportation Control Strategies	Explain what is meant by "Transportation Control Strategies". It means various complex changes that must be made in the way people move from place to place

transportation control strategies.

LEARNING ACTIVITIES	RESOURCE MATERIALS
1. Prepare an argument in favor of a balanced transportation system and explain how such a system would effect your community 2. Predict what might happen if the population continues to rise and more miles per person are driven each year 3. Explain how the energy shortage is partially the result of the over use of the automobile 4. Identify at least ten ways to conserve energy when using the automobile 5. Explain the relationship between increased population and automobile pollution 6. Report on the role of vehicle weight and fuel economy	California Guide to Traffic Safety Bureau of Publication California State Department of Education 721 Capitol Mall Sacramento, CA 95814 Published 1976 Film Catalog: Oklahoma State Department of Education To Clear the Air-9 min. The Tainted Sky-16 min.

SECTION 7

BACKGROUND INFORMATION

AIR POLLUTION: CAUSES, EFFECTS AND COUNTER MEASURES

Air is considered pollution when it contains enough materials to have a bad effect on people, animals, and plants, and when these effects are caused by contaminants produced by people in contrast to those from natural sources. Air is polluted mainly by:

Sulfur oxide - mostly from burning coal and fuel oil.
Carbon Monoxide - primarily from automobile engines.
Hydrocarbons - also from automobiles.
Particulates - particules of liquid or solid matter from almost any human process.
Nitrogen oxide - mainly from automobiles and steam power plants.
Flourides - from fertilizer and aluminum manufacturers, smelting, and the production of ceramics.
Photochemical smog - the result of the action of sunlight on automobile exhaust fumes.
Lead - from smelters, pigment making plants, and as a component of gasoline, automobile exhausts.

CAUSES OF AIR POLLUTION

Several processes contribute to air pollution. One is evaporation of liquids like gasoline. Another is attrition activities like grinding and drilling. But most air pollution comes from combustion in furnaces, vehicles, incinerators, and open dumps.

As people become more dependent on technology, the air becomes increasingly contaminated. Millions of tons of gases and particles are dumped into the air of our country every year, the by-products of society's activities.

Another major pollution source is open burning. Open dump burning has now been banned except in sparsely populated areas.

Industry is the primary source of suspended particulates and sulfur oxide. Other pollutants that contribute to smog are created by evaporation of paints, inks, solvents and gasoline.

EFFECTS OF AIR POLLUTION

There are many types of air pollution, each of which affect people differently.

In some states smog is a very serious kind of air pollution. Much still remains to be learned about smog, but it may be causing or significantly aggravating such respiratroy conditions as emphysema, bronchitis and asthma.

Carbon monoxide is a colorless, odorless gas, most of which comes from motor vehicle exhausts. In very high concentrations, it is a deadly poison. At concentrations sometimes found in metropolitan areas, carbon monoxide impairs to a measurable extent the oxygen transport functions of the blood.

Local sources of air pollution (usually industrial plants) can produce disturbing effects on the health of those living nearby. Smoke, soot, sulfur oxide, heavy metals, and other toxic chemicals may be emitted from the sources. Sufficient concentration of these can cause respiratory irritations, interference with lung functions, or other toxic reactions. Improved techniques of detection and more precise studies constantly provide information in addition to what is now known of the influence of air pollution on human health.

Air pollution has an important effect on other forms of life and matter than humans, among these are the following:

Effects on animals - Because the food that animals eat is contaminated by pollutants and because the effects of air pollution on animals are easier to verify in a laboratory, it is a known fact that contaminated air cannot only cripple and kill animals, but can cause some animals to yield fewer eggs, to produce less milk and to undergo many other debilitating effects.

Effects on Vegetation - Air pollution affects the growth and yield of plants. Studies continue to confirm that pollutants are affecting the nutritional value and the survival of the crops upon which humans depend for food.

Effects on Material - Air pollution can corrode metal, erode rocks, and cause rubber to crack. It can make paper brittle and leather desintegrate.

Effects on Visibility and Air Freshness - Two major complaints from the general public about air pollution are odor and interference with visibility.

Economic effects of Pollution - This nation suffers profound economic losses from dirty air. Some of these losses are reflected in higher medical costs, increased maintenance costs, greater employee absenteeism, reduced or destroyed crops, loss of livestock, higher cleaning bills and higher food bills.

COUNTERMEASURES OF POLLUTION

Two basic approaches can be used to reduce the auto-related air pollution. The first is to reduce the harmful emissions of each vehicle through the use of pollution control devices and engine modification. The second is to reduce emissions by reducing usage of automobiles and motorcycles.

Pollution control devices on automobiles since 1975 has helped to reduce pollution.

There needs to be some research done to determine the role of the motorcycle in air pollution. Currently smog devices are not required on motorcycles, and for this reason, motorcycle pollution remains an area of concern.

INDIVIDUAL ACTIONS

Some ways for automobiles to conserve energy and reduce air pollution are the following:

1. From dead stop, accelerate slowly
2. Avoid unnecessary braking
3. Drive at steady, moderate speeds
4. Avoid unnecessary use of air conditioner
5. Avoid excessive idling
6. Join a car pool
7. Plan short trips carefully
8. Keep your engine tuned up
9. Check tire pressure
10. Have wheels aligned properly
11. Have brakes adjusted
12. Don't "top off" the gasoline tank
13. Change oil & filter as recommended
14. Walk or ride a bike.

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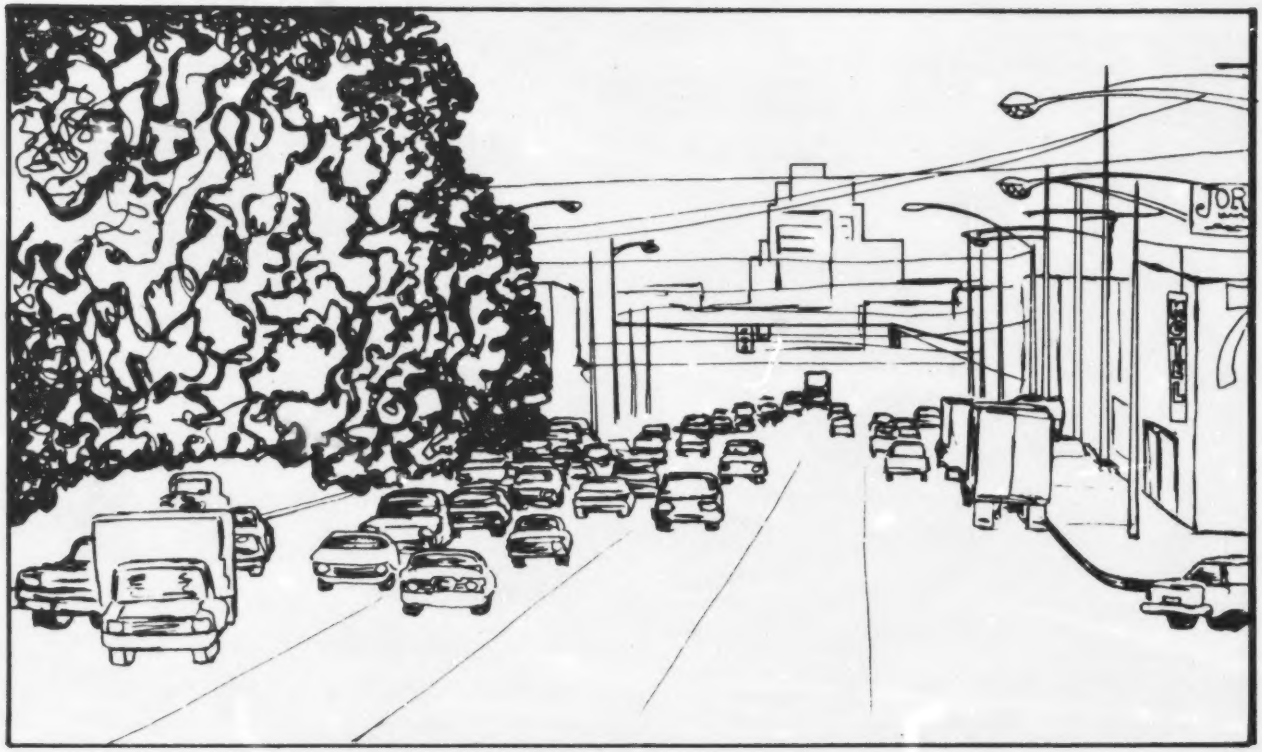

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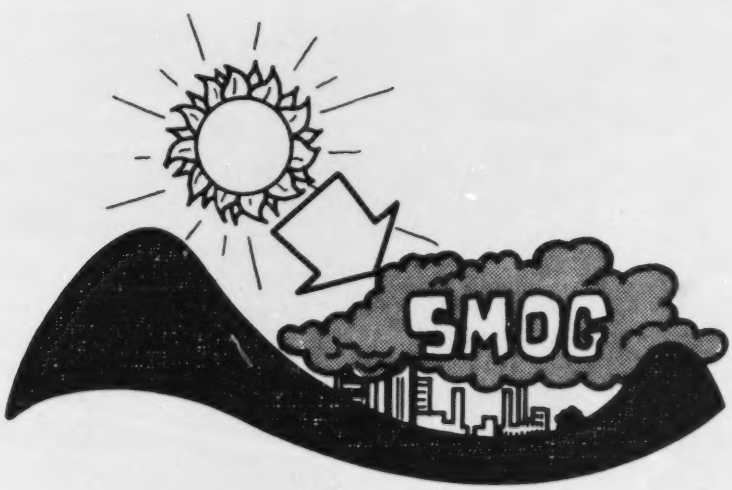

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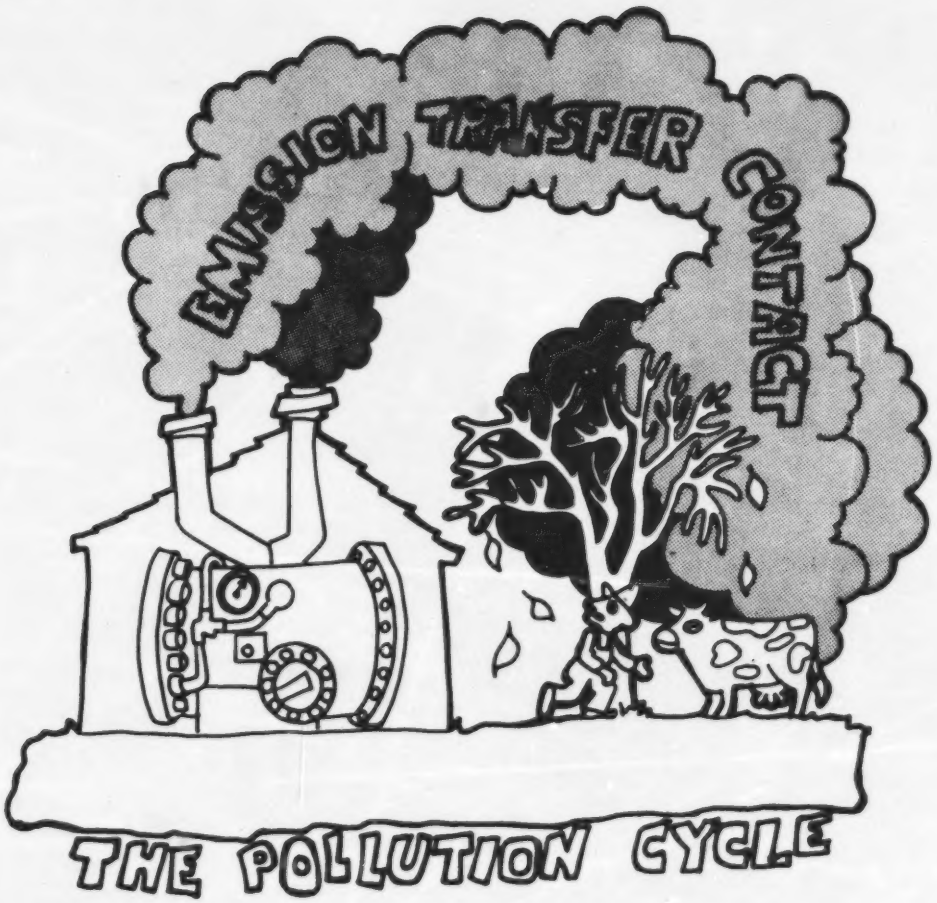

Evaluation

Upgrading teaching materials is an ongoing process. Our section is constantly in search of new materials and techniques to be used in teaching Driver and Traffic Safety Education. Would you please help us to upgrade this work by responding to the following.

1. Check the area of Driver Education in which you have most difficulty finding materials. ___Behind-the-wheel___Classroom___Alcohol and Drug Education___ Traffic skills.

2. Did you find material in this publication of practical assistance in teaching Driver Education?___practical ___impractical.

3. Were the format, continuity, and content___easily understood___hard to follow?

4. What do you consider the major strength of this publication?_____

   _____

5. What do you consider the major weakness of this publication?_____

   _____

6. What materials do you feel are left out that should be included?_____

   _____

   _____

   _____

If you have tried other ideas that have proven successful in teaching pupils to drive, would you share them in this space? (Use the back of this form if more space is needed)
Name_____School_____
_____
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Return to: Driver and Safety Education, State Department of Education, 2500 N. Lincoln Boulevard Oklahoma City, Oklahoma 73105